

At present the rail, instead of being continuous, is cut at distances of 15 or 20 feet. When the wheel is at the centre of the bar, it is sustained by its whole length, and by the same extent of road bed. At the end of the rail, this support is narrowed down to a point. As a necessary consequence, it here yields under the enormous pressure it is called upon to sustain, and permanent depressions in the road bed are thus formed at every joint. Instead of an uniform, we have a rolling surface with regular depressions and elevations, to overcome which, absorbs a large portion of the motive power. For the reasons stated, it has been found to be impossible to so secure the ends of the rails in use, as to preserve them upon the same plane, or so that they shall always maintain the same relative position towards each other. The consequence is, that in passing from one to the other, the head of the rail in advance, being elevated, receives a violent blow which exerts an injurious effect, both upon the rail and the machinery. One tendency is to knock the rail out of its place. Another is to destroy the ends of the rail much faster than their centres. The injury to the machinery

is just in proportion to the violence of the blow.—We do not propose to go into an examination of the extent of this evil, as the experience of every railroad man will be more satisfactory than anything we can say; but we wish to call the attention of the profession to the importance of avoiding, as far as possible, all concussions in the working of a railroad. It is a well known fact that the structure of iron, the great material used, is essentially changed simply by the impact of heavy blows. Without attempting to account for the fact, we know that *pressure*, and *percussion*, exert an entirely different influence upon iron. A rail will allow millions of tons of pressure to pass over it without changing its structure, or materially wearing away its surface, while a few well directed blows of a hammer upon it, will render it entirely unfit for use. These change the arrangement of its fibre, and destroy its strength. This is one of the reasons why so many unforeseen accidents occur upon railroads. Every blow that the rail, or the rolling stock, receives, in the passage of the trains, acts directly upon all the material in use. The effect of a given number of these, are equal to the resistance of such material; and if we could calculate the amount of the one, we could determine the life of the other.

In the compound rail, and particularly in the Seymour pattern, this concussion is almost entirely obviated. By the system of breaking joints made use of, the ends of the rails are no more injuriously acted upon than are the central portions of it.—The effect of the action of the trains passing over it, is that arising from pressure, not percussion. In the former case, the rail is worn out. In the latter the character of the iron is changed, and its efficiency destroyed, while the form remain unaltered.

What we have thus far said, has reference chiefly to the relative economy of the two kinds of rail, as far as their wear, and that of the track, are concerned. We have seen that in each case different principles are called into action; that in one case the rail is *worn out*, in the other, *destroyed*. But the saving effected here, great as it may be, is only one of the advantages of the continuous rail. It communicates a regular and uniform motion to the trains, and relieves the passenger of that greatest annoyance in travelling, the eternal *clatter* caused by passing from one rail to the other. It saves a greater part of the expense of maintenance of way, an item which eats up so large a portion of the receipts on our roads. The cause of the saving here is perfectly obvious. In the continuous rail, every part of it is equally well supported, and every part of the track is uniformly acted upon. Where the rail extends for miles without being divided, its own weight will keep it in place, even if the road bed should have a tendency to settle unequally; so that in case of a culvert, or an embankment, being washed away, the rail will remain in its position, and sustain of itself the passage of the trains. On curves, the compound rail is particularly applicable, as with it a true curve may be maintained, and the angles, which are almost unavoidable in the use of the common rail, avoided. It is the immense centrifugal force of heavy trains, in passing around a sharp curve, that renders it so difficult to keep the present rail in place, and to avoid the constant recurrence of accidents. In all such cases, as well as in those where the track runs along a high embankment, or side cut, companies should not only be compelled to use the compound rail,

but this should be made of the very best material. The community collectively should enforce this rule, which is equally for the interest of companies, as for the safety of the public.

The saving in the machinery will be equal to that effected in the road bed and superstructure; as the wear of both is attributable to the same cause, and keep almost exact pace with each other. If the track is in bad order, it is impossible to maintain the rolling stock in good condition.

We have referred to this matter, not because we have anything to state that does not come within the ordinary experience of every man employed in the operating of railroads, but rather for the purpose of arousing public attention to this most important subject. In the improvement of the rail, lies the great field for reform in railroad management. This may be effected, and without additional expense, by simply adopting such improvements, the value of which are fairly and fully demonstrated. Our companies are certainly culpable in not having turned their attention to this subject long ago. One great reason of this neglect is, that directors of companies, with all the zeal and ambition which many of them really possess to advance the interests entrusted to their care, have neither the time, nor opportunity, nor are they in a position where they can give personal attention to the examination of anything *new*. They have no means at their command for such objects; and if they had, few have sufficient confidence in their own judgment, to be willing to stand God-father at the christening into practice of a new idea.—Companies, too, are so annoyed by the constant importunities of inventors, to examine and experiment upon what often turns out to be worthless, that most of them have adopted this rule, to make use of nothing new, the value of which is not already well established. This rule may be a very good one to secure the quiet and comfort of railroad directors and officers; but if universally acted upon, all progress would be at an end. If our predecessors had adopted a similar one, we should have been where they were.

It is very easy to see that vastly greater speed is obtained with the same power, on a compound rail, than upon the common form. The extent of this increase is, at present, a matter of conjecture, but we have no doubt but the speed of trains may, by the use of the new rail, be increased at least one-quarter beyond the present rate, with the same amount of fuel. In rival lines, the turning point will certainly be, the use of a compound rail.—We are very glad to learn that this subject is attracting the attention of the New York and Erie railroad company, and that they will probably order a sufficient quantity of the "Seymour" rail, to relay the Delaware division of their road. This, from the grade encountered, and from the exposed position of many parts of this portion of the line, is by far the most dangerous and expensive division on the whole route. The success of this, as a through passenger road, resolves itself into a question of speed. The line which will place the passengers on Lake Erie, one hour in advance of the other, will command the travel. But this company must remember that high speeds are only compatible with a good road and superstructure, and to our minds they should not hesitate for an instant in placing the compound rail upon that portion of the line most liable, for the reasons stated, to accidents. Nothing should be neglected that may be necessary to retain the confidence of the public as to the safety of their road, which has been a little shaken by the accidents that have already occurred.

Troy, March 6, 1851.

H. V. Poon, Esq., Editor American Railroad Journal.

Dear Sir—On the 4th ult. I addressed a note to C. Vibbard, Esq., Superintendent of the Utica and Schenectady railroad, making certain inquiries in relation to the "Patent Compound Railroad Iron" in use upon that road, and which was manufactured at the Mount Savage Iron Works, in Maryland. Herewith I send you for publication a *verbatim* copy of his reply. I think you will agree with me, that Mr. Vibbard's experience with this new form of rail is singularly confirmatory of the advantages claimed for it by you in a series of editorial articles recently published in your Journal, as well as a practical demonstration of the soundness of the views just given to the public in a pamphlet upon the "Defects of Railway Tracks and their Remedy, by the adoption of a new form of Railway Bar, by Benjamin H. Latrobe, Esq., Civil Engineer," and which I am glad to see you are transferring to the columns of the Railroad Journal.

Very respectfully,

Yours,

J. F. WINSLOW,  
Pres't. Mt. Sav. Iron Co.

Utica and Schenectady Railroad Office,  
Schenectady, March 1, 1851.

J. F. WINSLOW, Esq., President Mount Savage Iron Company.

Dear Sir—Yours of the 4th of February, submitting various interrogatories relative to the "Patent Compound Railroad Iron" furnished by your company, and laid down upon this road, was duly received, to which I shall reply in general terms, making the ordinary T rail the standard of comparison. From my own observation, and the experience of locomotive engineers, who are daily running upon the compound, in connection with the T rail, (which is superior of its kind,) I am clearly of the opinion that there is a saving in the wear and tear to the machinery of the road, of at least 25 per cent.

In passing from the T to the compound rail with the trains, a much higher rate of speed is attained with the same power, which can only be attributed to the non-resistance at the joints. There can be no doubt that a less expenditure of motive power is required upon the compound rail in pulling loads of equal weight, but to what extent I am unable to say.

In November, 1849, about one thousand feet of the compound rail, furnished by you, was laid down in connection with the T rail in the main track, over which all trains passing westward from Schenectady were run.

This part of the track has not been repaired or adjusted, *nor has it required to be*, while the T rail which was laid at the same time, and with great care, has required repeated adjustment. The ten miles of your compound rail laid last fall has also kept in admirable adjustment.

The experience on this road in that respect, is the same as upon all others where the T rail is in use.

A very large proportion of the expense of adjusting the track is at the joint or end of the rail, which is caused by the weakness, or break in the track at that point. This defect is entirely obviated by the use of the compound rail which gives an equal and perfect bearing upon all the cross-ties, thereby reducing the expense of keeping the track in adjustment, more than one-half. No part of the com-



pound rail has broken or been thrown out, while a large number of broken and defective bars of the T rail has been removed. Neither has a wheel or shaft broken upon this part of the rail. Higher speed can be maintained with same power, greater safety and comfort to the passengers, the oscillation and noise of the cars being much less than upon the T rail.

No chair is required in laying the compound rail, the saving in expense of which I consider more than equal to the additional cost of rivets and riveting together the bars. Two or three rivets, only, have broken since the rail has been in use, which upon examination proved to have been defective when driven.

Additional experience is wanted to determine the durability of the compound rail, in comparison with the T rail. That the result will be in favor of a compound rail, I see no reason to doubt.

Respectfully,  
Your obt. serv't.,  
C. VIBBARD, Supt.

#### The Compound Rail.

We forward with this to such of our subscribers as did not receive it the past week, the cut illustrating the article of Mr. Latrobe upon the compound rail, which we published in our issue of the 1st and 8th inst. We also give the evidence of a large number of employees of the Baltimore and Ohio railroad company, in relation to the manner in which the new rail has worked since it has been in use. As Mr. Latrobe's article is so full and explicit, and as his observations are the result of a very extended experience, his communication requires nothing from us in elucidation of the subject, even if we felt at liberty to add anything. We commend this subject to the careful attention of the railroad public:

The undersigned, masters of road and supervisors of repairs upon the parts of the Baltimore and Ohio railroad, on which the several sections of the new rail composed of three parts have been laid—unite (each for himself in regard to the part of the track under his own charge) in the following statement of their experience and opinions of the merits of that rail.

There are four different points at which the rail has been laid down, viz. 200 feet in the Mount Clare cut, near Baltimore, laid in May, 1849, and now down ten months—600 feet, a mile west of Avalon Works, laid in May, 1848, and now down twenty-two months—900 feet, at Sykesville, laid in May, 1849, and 4,000 feet, near Cumberland, laid in June, 1849. All of these sections have been laid upon cross ties only, without any sub-sill, excepting the piece near Sykesville, where a sub-sill was used, the embankment being newly made. The weight of the rail is about 50 lbs. per yard. It is riveted together and spiked down upon the cross-ties without chairs, joint plates, or other fastening.

We are enabled to say that the track thus far has given us great satisfaction, and that we are led to consider it a decided improvement upon any form of railway structure of which we have any knowledge. The manner in which the pieces composing the rail break joints with each other, and the simple and permanent mode in which they are connected, equalize the strength of the track, so that it forms, in effect, a continuous rail without joints—while there is an entire freedom from the shock and clatter which invariably takes place at the joining of the bars of other tracks, there is at the same time, a general elastic spring in the new rail, which relieves the passing train of any harshness, or jar, in the movement, and which must diminish, as we suppose, the wear and tear of engines and cars, as much as it does that of the track.

We find that considerably less labor is required to keep the new track in adjustment than the old, under similar circumstances, and we should feel much more safe in leaving it in an imperfect state

of adjustment than the other—the joints of which require constant attention.

We see no reason thus far to think that the top or cap rail will wear more rapidly than the upper surface of any solid rail—the few bars in the section near Avalon, which have shown some wear at the ends, were defective when laid down (the cap being also of the lighter pattern; afterwards made heavier for use in the other sections) nor is there in that section more signs of wear than are to be observed on other similar lengths of the U or T rail in use for the same time.

The rivets appear to hold the rail together well, and of those of the larger size, few or more break when the track is well laid and settled. The expense of renewing rivets must, in any event, we think, be very trifling compared with that of replacing the chairs, plates, and bolts, spikes, or other joint fastenings of other forms of rail. The spikes of the new track will also, we believe, outlast those of the old rails: the spikes of a smaller size will answer the same purpose.

We do not believe there will be any difficulty in promptly rebuilding the track if deranged by the running off of trains, and we think that, connected as it is, from end to end, it will be very difficult, if, indeed, possible, that a train should tear it to pieces as it does a track composed of solid bars, depending only upon the ordinary fastenings at the joints to hold them together. The three part rail now laid is of the lighter weight suitable to a rail of any form laid on cross-ties; and we judge that as it has, notwithstanding, succeeded so well, it would show its good properties still more strongly if it were of any heavier weight. There appears to be no difficulty in the accommodation of the rail to the contraction and expansion of the several parts by heat and cold. Although the track may be still regarded as an experimental one, only because it is comparatively new, yet we think it has been long enough in use to remove all the objections we have heard or felt against it, and we are satisfied it embraces principles of construction which distinguish it from all preceding tracks, and which must ensure its ultimate success, as a highly valuable improvement upon the railway structure.

Wendel Bollman, Mast. of R. 2d div. B. & O. R.R.  
William D. Burton, Supervisor.

Roseby Carr, Supervisor.

James B. Jordan, Foreman shops, Mt. Clare depot.  
S. T. Shipley, Master of R. 1st div., B. & O. R. R.

Robt. Murray, Supervisor.  
Thatcher Perkins, Mast. of Mach'y B. & O. R. R.

March, 1850.  
The undersigned, employed in various capacities upon the passenger and tonnage trains of the Baltimore and Ohio railroad company, being requested to express their opinions upon the merits of the new form of rail composed of three parts, and of which several short sections have been laid upon the company's road during the past year, unite in the following statement:

The movement of the engine and cars of the train upon this rail is more smooth and free from shocks and jar than upon any other form of track with which they have any acquaintance upon this or any other road. There is also much less noise either from the track itself, or from the train. The solidity of the track is at the same time accompanied by an elasticity and softness of motion which they suppose must diminish greatly the wear and tear of the machinery, and the permanent connection of all the parts of the rail, appears entirely to obviate the risks of accidents from the displacement of the bars. In short, the undersigned best express their views in regard to the track, by saying that they feel safer and more comfortable upon it, than upon any other, over which they have passed.

Signed by a number of the employees of the Co.

#### Description of the Navy Dry Dock at Brooklyn.

The stone dock at the Brooklyn Navy Yard being so far completed as to be used for the purpose intended, I send you the following description of it:—

Length of dock from cession to head.... 348 feet.  
Width of chamber at coping..... 98 "  
Depth of water at high tide..... 27 "  
Gross amount of stone used, 30,000 cubic yards.  
Cost, up to January 1st, 1851, \$1,933,640.

For pumping out the water they have a vertical beam engine, having a cylinder of 50 inches diameter, and 12 feet stroke; the beam is of cast iron, 32 feet long, and at the opposite end from the cylinder there is a connecting rod attached to the crank shaft, on which is a fly-wheel of 24 feet diameter. There are two single acting lifting pumps, (one being worked from each side of the beam,) lined with composition, 63 inches diameter and 8 feet stroke. The quantity of water to be removed is about 600,000 cubic feet, and the time occupied 3 hours; the smallest lift being 2½ feet, and the greatest 26 feet. Connected to the engine are three drop flue boilers, so arranged as to be used singly or together, at pleasure. The cut-off valve used on the engine is separate from the steam valves of the engine, and is so arranged that it may be adjusted at pleasure while the engine is in motion. The engine and pumps are a fine specimen of work and were constructed by Mr. Kemble, at the West Point Foundry.—*Journal of the Franklin Institute.*

#### Steamships building at the port of New York.

The Merchants' Magazine states that the first regular steamships built in New York were the *Lion* and the *Eagle*—launched in the year 1840, by Jacob Bell, for the Spanish government. They are now attached to the Spanish navy, and are known as Congress and Regent. The next was the *Kamschatka*, built by Wm. H. Brown, in 1841 and sold to the Russian government; but the *Washington*, of the New York and Bremen line, launched by Westervelt and Mackay, in January of the year 1847, was the first vessel owned in the United States in connection with a regular line of ocean steamers. The steamships *United States* and *Hermann* followed in 1848. The former was soon after sold to the Germanic Confederation. These three vessels were the pioneers of American adventure in this important branch of national industry.

#### Ocean Steam Navigation—The Cunard Line.

Below we give from the British Almanac and Companion a brief account of this line of steamers, for the purpose of preserving a record of the history of one of the great enterprises of the day, and one which is now attracting so large a share of the public attention:

A committee of merchants and others was formed at Bristol in 1835, for the purpose of getting up a steam ship company, for a mail line to New York; and Captain Claxton was desired to report on the practicability, of such an enterprise. He had visited all the principal ports, and made frequent voyages across the Atlantic. He advised that the vessels for such a line should not be less than 1,200 tons. He found that the fine American 'liners' have an average homeward passage of 24 days, and an average outward passage of 36 days; and he anticipated that such steamers as he recommended might make the journey in 13 days and 20 days, respectively. The company was formed; the *Great Western* steam ship was built; and the year 1838 witnessed the first transit of a steamer across the Atlantic. In the meantime an Irish company, the *St. George's* steam packet company, embarked in the same enterprise; and the *Sirius* left Cork in the same month as the *Great Western* left Bristol, both bound for New York, and both reaching the place of destination in safety. Never was a boldly conceived plan more successfully carried out against the predictions of many scientific men. The *Sirius* left Cork on April 4, and arrived at New York April 23, equal to 161 miles per day; on her return voyage she averaged 167 miles per day. The *Great Western* left Bristol April 8, and arrived at New York, April 53; her average speed was 208 miles per day, while the average speed homeward was 213 miles. In eighty-four passages, made between 1838 and 1844, the *Great Western* ran the outward passage in an average time of 15½ days, and the homeward route in an average time of 13½ days.

The *Great Western* steam ship company received a small postage for all letters conveyed by the *Great Western*; but as this sum was inadequate they memorialized the government, in September 1838, to consent to a new arrangement. In November of the same year, the government adver-

tised for tenders for the conveyance of the mails from England to Halifax: the steamers to be ready in six months, and the contract to be for one year. The company in making a tender, stated that three large steamers would be necessary for this service; that they would have to be built for the purpose [two new ones as companions to the Great Western]; that they would require 18 to 24 months for building, and that the contract ought to be for 7 years, for which a sum was named. The government declined this offer. From this time the company remained, as they have ever since been, a most luckless one, in a commercial point of view. They have failed to secure any government contract; and their private running of steam boats has not been remunerative. The Great Britain was built with a view to increase the net profits, by carrying larger cargoes of goods and passengers; but she ran upon the sands at Dundrum Bay, and although released a year afterwards, she never since earned a shilling for her proprietors. The President and the British Queen belonged to another company; the former was lost, and the latter was sold to the Belgian government. The Sirius, too, was taken off the Atlantic route. After the proprietors of the Great Western had been running that vessel for four years, they memorialized the government for some contract or other, some remuneration for the services which they had been the first to render to transatlantic communication; but competition had done its work; another contractor had been agreed with, and the government had nothing to give, or would give nothing to the Great Western and its owners. The Great Western, however, continued to run to New York; the contract with other parties extending [in the first instance] only as far as Halifax.

We must now speak of this competitor. Mr. Cunard came to England from America with the view of improving the communication between the two countries; and a tender which he made was accepted by the government. The contract was for three steamers, which would maintain a monthly communication in each direction between Liverpool and Halifax, starting on fixed days from each end. The contract sum was £55,000 per annum; but it was soon found that four ships were necessary, and the terms were increased to £60,000. The tonnage was fixed at 1,300 tons. The contract was signed in May, 1839, the first Cunard steamer ran in July 1840, and the contract was for 7 years. A further change was afterwards made, on account of again increasing the number and tonnage of the steamers, and making fortnightly voyages instead of monthly. The three first built steamers were smaller than those afterwards constructed; they were the *Britania*, the *Acadia*, and the *Caledonia*. The custom has been for the vessels of this company to carry coal enough for 20 days' consumption, to make allowance for detention, and the vessels have thus never run short of coals. Mr. Cunard for some time held the whole property in this contract in his own hands; but he subsequently sold three-fourths to other parties at Glasgow, retaining the chief management himself. Mr. Robt. Napier, of Glasgow, supplied the whole of the engines for this fine fleet of steamers.

When the contract with the Cunard line was about approaching its termination, the American government offered inducements for the establishment of a new line of steamers from New York to Liverpool. This would have seriously damaged the Cunard company, whose American ports were Halifax and Boston, and Mr. Cunard came to England expressly to urge upon the English government the necessity of extending the operations, both as to the frequency and the length of the voyage. A clause had been introduced into the former contract, making provision for some such contingency as this; and the government, on the pressing representations of Mr. Cunard, consented to enter upon new arrangements. The *Great Western*, meantime, had regularly carried on the steam traffic between England and New York, but this new contract startled her proprietors. It was in the autumn of 1845 that the negotiations were going on, and in the spring of next year the new contract was completed, by virtue of which the Cunard company undertake to despatch a mail steamer once a fortnight from Liverpool to Halifax and Boston, and another mail steamer once a fortnight

from Liverpool to New York; the price being £145,000 per annum, and the contract to remain in force till 1858. The American company, with whom an agreement was entered into by the United States government, planned a line from Bremen to New York, calling at Cowes to accommodate English traffic; but this was soon found to be an inefficient mode as far as England is concerned.

The steam vessels belonging to the British and North American Royal Mail Steam Packet Company (Cunard's) on January 1, 1849, were the following:—

Names.	Year built.	Length.	Tonnage
<i>Britania</i> .....	1840	204 feet.	1155 tons.
<i>Acadia</i> .....	"	203 "	1136 "
<i>Caledonia</i> .....	"	203 "	1139 "
<i>Margaret</i> .....	1842	185 "	600 "
<i>Hibernia</i> .....	1843	218 "	1422 "
<i>Cambria</i> .....	1847	218 "	1423 "
<i>America</i> .....	1848	249 "	1826 "
<i>Niagara</i> .....	"	249 "	1825 "
<i>Europa</i> .....	"	249 "	1834 "
<i>Satellite</i> .....	"	108 "	157 "
<i>Canada</i> .....	"	249 "	1832 "

Two of the above were subsidiary: the other nine were ocean steamers. One or two have since passed into other hands, [the *Hibernia* has been purchased by the Spanish government, to run between Cadiz and Cuba]; and new ones, of which the *Asia* and *Africa* are fine specimens, have been placed upon the route.

#### From the Merchant's Magazine. Internal Improvements of the State of New York.

A SKETCH OF THE RISE, PROGRESS, AND PRESENT  
CONDITION OF INTERNAL IMPROVEMENTS IN THE  
STATE OF NEW YORK.

##### ENLARGEMENT OF THE ERIE CANAL.

Continued from page 149.

Acts were passed in 1840 for borrowing \$2,750,000 for the canals, and for loaning \$998,000 to railroads. No new canals were authorised, or charters for railroads granted at this session. The 5th section of the act for making loans for the canals, provided that "no new work shall be put under contract during the present year, on the enlargement," except at Black Rock, and some work at Rochester. An act also passed at this session, to purchase the Oneida Lake canal from the company which constructed it, and to issue stock to the amount of fifty thousand dollars therefor. The maintenance of this canal for nine years, has cost the State \$43,513 97—paid for interest on the debt for its construction, \$21,166 09. The amount received for tolls in nine years is \$5,162 26; the expenses exceed the revenue from tolls in nine years, \$59,517 80; besides the original outlay of \$50,000, which the State must pay hereafter.

The commissioners of the canal fund, in their annual report in January, 1841, stated that "from the 10th of February, 1839, to the 1st of January, instant, a period of less than two years, there has been expended on the Erie canal enlargement, and on the Genesee Valley and Black River canals, more than nine millions of dollars; a sum greater, it is believed, than was ever expended, during peace, by any government, upon works of internal improvement."

The report states that the large contracts made in 1838 and 1839, by which obligations for the expenditure of ten millions five hundred thousand dollars were incurred, left no option but to fulfil these engagements. They suggest that much of the work may be postponed, by an arrangement with contractors. "If not, then it will become a question for the legislature to decide, whether the public interest will not require the direction of some delay in a portion of it, in preference to proceeding at a rate which the business of the canal does not require, and which the financial circumstances of the State may not justify." And they add, that the loans for the public works for the present year should not exceed those of the past. This report appears to have been written by Mr. Spencer, and is signed by him, Bates Cooke, Willis Hall, O. L. Holley and Jacob Haight.

The canal commissioners, however, in their annual report, stated that the amount of \$6,550,000 would be required "to continue, at the present rate

of progress, the work now under contract, including such additional portions as should be put under contract in the year 1841." This report appears to have been written by Samuel B. Ruggles, and was signed by Messrs. Hamilton, Whitney, Dexter, Hudson and Boughton.

Mr. Verplanck, chairman of the committee on finance of the senate, brought in a bill for a loan of \$4,000,000, to prosecute the public works. This bill passed the senate by a vote of 16 to 7. The negative votes were given by John Hunter, Robert Denniston, A. C. Paige, J. B. Scott, S. Ely, H. W. Strong, and Avery Skinner. Mr. Hunter made a speech against the bill, in which he told the senate "there were only two ways in which credit could be maintained; the one is, not to use it too freely; the other is, to levy a tax whenever you make a loan, to meet the interest which may accrue thereon." He also stated that if the fund commissioners put into the market the amount of the proposed loan between the time of this discussion in the senate and midsummer, the 5 per cents would be reduced to 80 cents for 100 of stock. This prediction was realised before the close of April.

In the assembly, the majority of the committee on ways and means, reduced the proposed loan to three millions, and in this shape Mr. Holley reported it for the concurrence of the house.

Mr. Hoffman made a minority report, in which he proposed to reduce the loan for the public works to two millions of dollars; to cut off all future loans of state credit to corporations; to levy a mill tax; to provide a sinking fund for the payment of the State debt; and to suspend the prosecution of contracts, except where the public interest required their completion. John W. Lawrence signed this report, with Mr. Hoffman. These propositions were rejected, 64 to 42, and the bill passed for three millions, which was concurred in by the senate.

A loan of \$200,000 was also authorised, to rebuild the locks, and otherwise improve the Chemung canal.

John A. Collier was appointed comptroller by the legislature of 1841, in place of Bates Cooke, who resigned, and was made a bank commissioner.

In the message of Governor Seward, in 1842, he announced the fact that the *Ithaca* and *Owego*, and the *Catskill* and *Canajoharie* railroads had failed, leaving the State to pay the interest and principal on \$515,100 of State stock loaned to said companies. The total loss to the State, by the payment of principal and interest, in consequence of the loans of its credit to these two roads, is \$1,010,827 87.

The message stated that ten thousand laborers were employed on the public works, and the legislature were urged to complete the enlargement with all convenient diligence, and to aid the Erie railroad and other works, to an aggregate amount of seventeen millions; making the total indebtedness of the State thirty-six and a half millions of dollars.

In the annual report of the canal commissioners, Mr. Ruggles and his associates urged the speedy completion of the enlargement of the Erie canal.

When the message of the governor came under consideration in the house, for reference to the several committees, Mr. Hoffman reviewed the condition of the public works and the finances, and indicated the policy which was subsequently embodied in the act introduced by him "for paying the debt and preserving the credit of the State."

On the 7th of February, Samuel Young was appointed secretary of state, A. C. Flagg comptroller, Thomas Farrington, treasurer, George P. Barker, attorney general, and Nathaniel Jones, surveyor general. Luther Bradish being lieutenant governor, was president of the board of fund commissioners.

Immediate measures were taken to notify the banks which held the fund set apart for the payment of the canal debt, that this money would be drawn upon to pay the interest on the State debt, on the first of April, and to put the canals in repair, being the only resource within the reach of the commissioner of the canal fund. Out of deposits amounting to fourteen hundred thousand dollars, less than two hundred thousand was paid over, after notice of 60 days; barely sufficient to pay the quarterly interest on the canal debt. Arrangements were then made with the banks which re-



ceived the tolls from collectors, to advance sums sufficient to put the canals in repair, and to reimburse themselves out of the first tolls received.—Temporary loans had been made the preceding year to the amount of \$1,613,000, which were payable in the month of March, 1842. The interest on these loans was paid, but the principal was not paid for want of means. On the 14th of March, the comptroller was notified that the Erie railroad company was not in a condition to pay the April interest on the three millions loaned to said company. In this emergency, he sent a circular to the auctioneers in the city of New York, requesting them to deposit in the Manhattan company, to the credit of the treasurer, on the 31st of March, the quarterly payments, which, by the law, were not payable until the 30th day of April. This request was promptly complied with, and the means were thus furnished to pay the interest on the Erie railroad stock.

On the 15th of February, 1842, the comptroller made a special communication to the legislature, (assembly document No. 61,) giving a view of the financial condition of the State, and recommending a mill tax, and concurring generally in the measures suggested in Mr. Hoffman's report of the preceding year.

On the 7th of March, Mr. Hoffman made a report as chairman of the committee on ways and means, and introduced his celebrated bill, entitled "An act to provide for paying the debt and preserving the credit of the State." This bill passed the assembly by a vote of 50 to 27, and the senate by a vote of 13 to 11.\*

At the time the suspension act took effect, the unfinished contracts amounted to about three millions of dollars; and the amount due to contractors for work done up to that time, and for land damages, was about three millions more, exclusive of about half a million of dollars subsequently allowed and paid to contractors for breaches of their contracts by the suspension act. The same act which suspended the public works, made provision for borrowing more than five millions of dollars, and an annual tax of more than half a million, to meet the pecuniary obligations of the State; and to this was added loans of a million and a half more, by acts passed in 1843 and 1844; and a new tax of one tenth of a mill in the latter year, to pay interest on a loan of \$900,000. This tax produced \$175,913 in three years, and was then discontinued under a provision of the act for its assessment, (chapter 314 of 1844.) One half of the mill tax was discontinued in 1845, by the operation of the 11th section of chapter 114 of the laws of 1842.

At an extra session of the legislature in August, 1842, "for the purpose of dividing the State into congressional districts," Governor Seward presented a message, in which he recommended that the legislature rescind the law directing the discontinuance of the public works; render aid to the N. York and Erie railroad; and direct the fiscal officers to apply their surplus tolls to the prosecution of the public works." This recommendation was not acted upon. A resolution was passed at this session, directing the comptroller to suspend the sale of the New York and Erie railroad until May, 1843.

Mr. Hoffman, and those who cooperated with him in levying a tax, considered it a matter of justice to those sections of the State which had not shared in the expenditures for internal improvements, but were heavily taxed, that they should be secured, by a constitutional guaranty, against future debts, and consequent taxation. An attempt was made to effect this object by an amendment of the constitution, introduced by Mr. Loomis, of Herkimer, in 1841, called 'the people's resolution.' This effort was persevered in during four or five sessions of the legislature, without success; and, in this state of things, an act was passed in 1845, to submit to the votes of the electors the question of

calling a convention to amend the constitution, which was decided by the people in the affirmative, by a majority of 179,307. The convention met on the 1st of June, 1846, and not only incorporated into the constitution the principles contained in Mr. Loomis' resolution, and Mr. Hoffman's financial act of 1842, but also a provision to pay the debt due from the canal fund to the general fund, as recommended by Mr. Flagg in his annual report as comptroller, in 1834.

After these provisions were engrafted upon the constitution, laws were passed for the resumption and prosecution of the unfinished public works, at the legislative session of 1847. See acts, chapters 259 to 263, and 445, of that year. The appropriations from the funds provided by the constitution for finishing the public works, exceed four millions of dollars for the last four years.

It is now about sixteen years since the act passed for the enlargement of the Erie canal; and for about five years of this time the work was suspended under the act of 1842, except where new structures were brought into use, instead of repairing old ones, for which they were substituted. The expenditures on the enlargement, to the close of 1849, amounted to \$20,516,319 72, of which the sum of \$4,742,661 06, was paid for interest on money borrowed. The completion of the work, it is estimated, will cost eleven millions of dollars more.

A large portion of the locks, aqueducts, and other expensive structures, are completed; but more than two hundred miles of the section work—that is, the excavation necessary to widen and deepen the canal between the locks and aqueducts, remains to be done.

In consequence of the great crowd of boats and lake vessels in the harbor at Buffalo creek in 1847, a committee of the citizens of that city, and the common council, invited the members of the canal board to visit the place, with a view of examining the accommodations for lake vessels and canal boats, and to recommend to the legislature such relief as was demanded by the increase of trade at that point. The canal board complied with this request, which resulted in recommending the excavation of a basin for lake vessels, covering an area of ten acres, about a mile from the lake, and connected with Buffalo creek at the head of navigation; and a ship canal near the mouth of the creek, covering an area of eighteen acres, also for the accommodation of lake vessels. The views of the canal board are given in assembly document No. 205, of 1847. This report was written by A. C. Flagg, and signed by Thomas Farrington, Nathaniel Jones, S. Clark, H. Halsey, John T. Hudson, N. S. Benton and J. VanBuren. The legislature, at the fall session of 1847, appropriated \$150,000 (chapter 445) to carry the recommendations of the canal board into effect.

#### From the Year Book of Facts. Great Circle Sailing.

A voyage has been made to Australia in an unusually short space of time, by adopting the system of great circle sailing, which was brought before the admiralty about two years since by Mr. John Towson. This new feature in navigation is of such obvious truth and decided advantage, that it is only surprising that navigators have waited till this time of day to adopt so self-evident a fact.—The principle is thus popularly explained:

The unprecedentedly short voyage made by the Constance has been acknowledged to have arisen from the application of a simple scientific principle to navigation, by which a month has been saved from the average time occupied by modern voyages. There is nothing visionary or abstract in the principle on which this improvement is founded; but it is one that has obtained the universal consent of civilised mankind—that this earth is a globe. But as a practical principle, this fact has been too much disregarded by the mariner. His chart is a plane, and by it he has been accustomed to navigate the ocean, and we can scarcely persuade him that the positions of distant lands are otherwise than they appear on the chart. This error was of little importance while the Mediterranean Sea was the principal seat of commerce, and the transit of the Atlantic ocean was an event of rare occurrence.—

Then, it was that Mercator's chart was received from the hand of its inventor as a most acceptable boon to the navigator. But now a very different order of circumstances exists. The members of the same British family are antipodal to each other, and the chart of half the earth's circumference is more frequently employed than that of the Atlantic had been a few score years since.

Under these circumstances, the Mercator's chart has become inadequate to meet all the requirements of the navigator. He is now called on by the men of science to regard the earth's true form, and when he undertakes voyages to distant lands, to take into consideration the circumstance that the earth is an artificial contrivance, which in many instances may lead him to false conclusions.

To avoid the erroneous conclusions drawn from Mercator's chart, we would refer the mariner to a work published by the British Admiralty two years since, entitled "Tables to facilitate the practice of Great Circle Sailing," constructed by Mr. John Towson. We do this with great confidence, since by its aid the Constance emigrant ship has shortened her voyage at least a month. But he will undervalue these tables if he imagines it will only enable him to follow Capt. Godfrey in his track to Australia, which route his late voyage has demonstrated to be the best practicable track. It is serviceable in all cases of voyages to regions situated at a great distance east or west of each other, both in shaping his track and in choosing his tack when unfavorable winds prevail; for we are convinced that errors in both these particulars are of daily occurrence, arising from his disregarding the globular formation of the earth.

The track pursued by the Constance is denominated by the author of the work alluded to, "Composite Great Circle Sailing," and is usefully employed when the great circle route would lead to impracticable latitudes. In the southern oceans it is peculiarly applicable, since in Capt. Godfrey's maximum latitude, 50°, favorable winds continually prevail for going out by the Cape and coming home by the Horn. To Australia 900 miles is also saved, and in a voyage to New Zealand, 100 miles more. Besides this advantage, the region of storms is avoided. Around the Cape of Good Hope is the only track in which storms prevail which an emigrant ship has to pass after she has crossed the tropic of Capricorn. In future voyages the mariner, by following Capt. Godfrey's track, will, to use a sea term, "give the Cape a wide berth;" so that we may anticipate that voyages on Capt. Godfrey's track will not only be completed in a shorter period than previously, but that this improvement in navigation will confer the additional advantage of greater degree of safety from wreck.

We are assured by scientific men who are peculiarly qualified to give an opinion on this question, that the system of great circle sailing offers immense advantages; and we find America and several Continental States are already adopting Mr. Towson's table.

#### Discovery of a Lead Mine in California.

California is noted for her resources of every character. Every day brings to view and develops more fully her hidden treasures. The Sacramento Transcript states, on what it deems credible authority, that a large mine of lead, in an almost pure state, exists several miles north east of the emigrant road, about 11 miles above Johnson's rancho. It was discovered by two Irishmen who were emigrating to California, and who had wandered from the road several miles, in pursuit of stock. They at once supposed it to be a silver mine, and that their fortunes were 'made.' They brought a large quantity to Mr. Johnson's rancho; it was examined and found to be very rich lead ore, containing probably 95 per cent of lead. Vast quantities could readily be obtained without the sinking of a shaft, or the driving of a level, since the ore is represented to lie upon the surface of the earth in large boulders. In course of time it is quite probable that the mine will be worked, and as no scientific examination has been made, it is fair to presume that the ore contains a fair proportion of silver, the latter being generally found to a greater or less extent in all lead mines.

\* Fifty-one members of the assembly, and 8 members of the senate, were absent when the vote was taken. Of those who were absent from the assembly, 43 were democrats, and 8 whigs. The bill was carried by a party vote in both houses; although whigs in the city of New York, representing a taxable capital of fifty millions of dollars, signed a paper urging the passage of the tax bill.

## STATEMENT OF THE SEVERAL ITEMS OF EXPENDITURE OF TRANSPORTATION PER PASSENGER AND PER TON PER MILE ON THE UTICA AND SCHENECTADY RAILROAD.

UTICA AND SCHENECTADY RAILROAD.	Amount.	Allotted to passenger transportation	Allotted to freight transportation	Per passenger per mile.	Passengers per mile run.	Freight per ton per mile.	Freight per mile run.
<i>Expenses of Maintaining Road.</i>							
Repairs of road bed and railway, excepting cost of iron, (see Law).....	\$44,789 24	31,821 64	12,967 60	cts. 0-142	cts. 13-84	cts. 0-272	cts. 13-856
Depreciation of way.....	819 00	582 10	236 90	0-002	0-25	0-005	0-253
Cost of iron used in repairs:—							
Allotted to passenger transportation, length in feet, weight in lbs. } freight							
Repairs of buildings.....							
Repairs of fences and gates.....	2,671 14	1,898 50	772 64	0-08	0-83	0-016	0-824
Taxes on real estate.....	24,470 88	17,392 54	7,078 34	0-78	7-56	0-149	7-563
<b>Totals</b> .....	<b>72,750 26</b>	<b>51,694 78</b>	<b>21,055 48</b>	<b>0-230</b>	<b>22-48</b>	<b>0-442</b>	<b>22-496</b>
<i>Expenses of Repairs of Machinery.</i>							
Repairs of engines and tenders.....	26,188 03	18,612 99	7,575 04	0-083	8-09	0-159	8-094
Depreciation of do.....							
Repairs of passenger and baggage cars.....	22,656 36	22,656 36		0-101	9-85		
Depreciation of do.....							
Repairs of freight cars.....	14,032 23		14,032 23			0-295	14-995
Depreciation of do.....							
Repairs of tools and machinery in shops.....	3,024 48	2,149 94	874 54	0-009	0-94	0-018	0-935
Incidental expenses, including oil, fuel, clerks, watchmen, etc, about shops.	5,406 22	3,842 45	1,563 77	0-017	1-67	0-033	1-670
<b>Totals</b> .....	<b>71,307 32</b>	<b>47,261 74</b>	<b>24,045 58</b>	<b>0-210</b>	<b>20-55</b>	<b>0-505</b>	<b>25-694</b>
<i>Expenses of Operating the Road.</i>							
Office expenses, stationery, etc.....	1,214 56	582 20	632 36	0-002	0-25	0-013	0-675
Agents and clerks.....	12,984 28	6,340 46	6,643 82	0-028	2-76	0-139	7-099
Labor, loading and unloading freight.....	7,806 72		7,806 72	0-000	0-00	0-164	8-342
Porter, watchmen and switch tenders.....	1,483 23	1,483 23		0-007	0-66	0-000	0-000
Wood and water station attendance.....	4,311 37	3,064 59	1,246 78	0-013	1-33	0-026	1-333
Conductors, baggage and brakemen.....	10,273 39	7,697 64	2,575 75	0-034	3-34	0-054	2-752
Enginemen and firemen.....	12,827 00	8,139 00	4,688 00	0-036	3-54	0-098	5-009
Fuel, cost and labor preparing.....	33,887 11	24,085 07	9,802 04	0-107	10-47	0-206	10-464
Oil and waste for engines and tenders.....	3,732 00	2,652 50	1,079 50	0-012	1-15	0-022	1-153
" freight cars.....	2,204 16	1,563 50	640 66	0-007	0-68	0-013	0-685
" passenger and baggage cars.....							
Loss and damage of goods and baggage.....	3,872 61	2,865 19	1,007 42	0-013	1-24	0-022	1-076
Damages for injuries to persons.....	5,587 75	5,587 75		0-026	2-43	0-000	0-000
" to property, including damages by fire and cattle killed on road..	1,983 60	1,983 60		0-009	0-86	0-000	0-000
General superintendence.....	5,986 03	4,254 53	1,731 50	0-018	1-86	0-036	1-850
Contingencies.....	55,962 47	5,872 21	50,090 26	2-027	2-55	1-052	53-526
<b>Totals</b> .....	<b>164,116 28</b>	<b>76,171 47</b>	<b>87,944 81</b>	<b>0-339</b>	<b>33-12</b>	<b>1-845</b>	<b>93-964</b>

## Georgia.

**Central Railroad.**—A meeting of the stockholders of this company was recently held at Savannah (pursuant to a resolution of a previous meeting held on the 6th of July last) at which the following important measures were adopted.

The committee appointed by the meeting in January, to investigate the affairs of the Muscogee railroad company, and also suggest a plan for building the twenty-one miles of railroad from Fort Valley to connect the South-Western railroad with the Muscogee branch, submitted through their chairman, R. R. Cuyler, Esq., a report, recommending a subscription of \$100,000 to that object, which was unanimously adopted.

Mr. Cuyler then submitted the following resolutions, which after much discussion were adopted by a very large majority.

Whereas, the capital stock of the company now stands at \$3,000,000, which has been appropriated as follows, to wit: \$205,790 to banking, and the residue to road purposes.

And whereas, the road and its appurtenances now stand on the books at \$3,029,154 54—thus making the road debtor for the whole bank capital, and the further sum of \$29,154 54.

And whereas, the enlargement or the depot at Savannah, the junction of the railroads at Macon—the relaying of the unfinished portion of the road with heavy iron, and a further increase of the engines and cars of the company, all imperiously demanded by the great increase of business soon certainly to come to the road, and plainly warranted

by the present earnings of the road and the expectation of that increased business:

Resolved, That it is the true policy of the company to provide at once for the speedy placing of its road and equipments in a condition suitable for the emergency, and to provide for the return of the banking capital.

Resolved, That the board of directors be and they are hereby authorized and directed to dispose of new general stock of the company, to the amount of 5,000 shares, of \$100 each—at such time or times as they may think most suitable, and that they apply the proceeds thereof, (together with such annual surplus, after paying dividends at the rate of 8 per cent per annum, as the board may find properly and safely applicable,) to the purposes above indicated.

And whereas it is reasonably to be expected that the surplus profits of the company (after paying dividends at the rate of 8 per cent per annum to the general stockholders, and the rates of dividend due to holders of guaranteed stock,) safely applicable to these purposes, will, in three years, amount to \$329,154 54; and therefore that, if the course mentioned in the preceding resolutions is strictly pursued, the company will be able, at the end of three years, after expending \$629,154 54 for road purposes, to place its road and equipments in a fit and proper condition for the business it may offer—to keep the cost thereof down to \$3,500,000, and to restore the bank capital to the amount of \$200,000. And it is further believed that the net income of the company thereafter will be at least \$375,000.

Resolved, That if this expectation shall be realized, the company will then be justified in issuing additional stock to the amount of \$300,000 as

a dividend to the then holders of general stock—thus making the capital \$4,000,000—of which the road and its appurtenances will stand for \$3,800, and the residue will be for banking \$200,000.

And Whereas, it is considered just and proper that the present general stockholders should have the privilege of taking the new stock above authorized at par if they desire it—

Resolved, That the said new stock be offered first to the persons who hold the present 20,845 shares of old stock, in the ratio or proportion of \$24,000 of new stock for each of the said 20,845 shares—and that the offer be kept open until the 1st day of December next.

And further Resolved, That if any of the present holders of the 20,845 shares, on subscribing for new stock, shall pay one-fourth down in cash and desire time to pay for the remainder, the board of directors be and they are hereby directed to extend the time of payment, on a pledge of stock, at lawful interest, say for one-quarter six months, one-quarter nine months, and the last quarter twelve months.

Major A. Porter, offered a resolution in favor of a subscription by this company, of one hundred thousand dollars, to the stock of the Augusta and Waynesboro' railroad company—when Mr. Cuyler offered the following resolution as a substitute, which was carried:

Resolved, That it is the sense of this meeting, that this company ought to aid the Augusta and Waynesboro' railroad company, by subscribing to the stock of that company the sum of \$95,000 payable in this company's seven per cent bonds whenever it shall appear to the board of directors that this subscription is necessary to finish the road to Augusta.

On the motion of P. L. Wade, Esq., the meeting adjourned.



**Indiana.**

**Business of the New Albany and Salem Railroad.**—As an evidence of the business already being done upon this road, we will state the fact, that the train which left this place on Wednesday last took down 30,000 lbs. of freight, the produce of our farmers, several horses and mules, and in addition to this, the passenger car was filled to overflowing. Still more—at the Spurgen Hill, two large cars filled with hogs were attached. In fact, not a trip from either end of the line has yet been made, which did not pay well, and what is better, the business seems to increase daily. So far, the business on this road has greatly exceeded the expectations of its most sanguine friends.—*Salem (Ia.) News.*

**Ohio.**

A bill has been introduced into the Ohio Legislature, which authorizes the Cleveland, Columbus and Cincinnati railroad company to construct a railroad from Columbus, Ohio, to Aberdeen, opposite Maysville, so as to connect with the Lexington and Maysville railroad. The capital stock of the company is increased to such sum as is necessary to accomplish the work.

**Indiana.**

**Jeffersonville Railroad.**—We saw Mr. Marsh one day last week, at Shelbyville. He has made a survey between Columbus and Shelbyville, and says the work is progressing finely between Jeffersonville and Columbus. We hope the company will get their road completed to the latter place during the present year.

We understand that the Shelby company object strongly to the construction of that part of the line between Columbus and Shelbyville, and that they intend to make an effort to enjoin the Jeffersonville company from making it. We apprehend that may be somewhat difficult to do.

The charter for a road from this place to Muncie was so amended as to authorize its construction to Union, on the Bellefontaine road. This amendment was made in order that, if the Jeffersonville company should decline to make the proposed extension from this place, the road may be extended by others. As they have made the preliminary survey, it is desirable that they should occupy the ground, but if they should decline doing so, others will now have the opportunity of carrying the work forward.—*Rushville Repub.*

**Vermont.**

The directors of the Rutland and Burlington railroad have determined to extend the line of road to Swanton, which will be to the Canadian line.—It will then be only a comparatively short distance to St. John's, where it will connect with the Lake Champlain and St. Lawrence railroad.

The Montreal Herald thus describes an invention for crossing at Rouse's Point for lack of a bridge:—

The engineers have shown the independence of their resources, by a contrivance which, though not a bridge, very nearly approaches one. On the Vermont side, a very extensive pier has been made by driving piles for some thousands of feet from the shore, to such a distance from the bank as to reduce the channel to the width of 400 feet. A large vessel has been built of such dimensions as to exactly correspond with this 400 feet channel, and upon the deck of this vessel iron rails are laid. Thus, when she is swung into the gap, there will be the continuous track required for the carriages, as there would be if there were really a bridge; and when the trains have passed over, there will be again the 400 feet of clear water way for the passage of craft.

**Maine.**

The Portland, Saco and Portsmouth railroad company, at the adjourned meeting at North Berwick last Wednesday, voted to accept the act of the Legislature authorizing them to subscribe to the stock of other roads. The specific object of this act was to empower them to aid the Kennebec and Portland railroad company. That aid is to be rendered upon the following conditions.

A piece of road is to be built by the Kennebec company, connecting their depot at Back Cove with the Portland, Saco and Portsmouth road at a point in Cape Elizabeth, some 2 1-3 miles distant from that depot. The Saco company will deliver to the Kennebec company one thousand shares of the stock in the former, provided the latter shall give their bond to deliver to the Saco company, on demand, one thousand shares in its capital stock, and to pay, until such demand is made, six per cent annually on one hundred thousand dollars; the Saco company retaining, to secure payment of the interest, the portion of the road to be built as above provided, which portion is to be run by the Portland, Saco and Portsmouth company, and the surplus of income over the interest is to be paid to the Kennebec company.—*Advertiser.*

**Illinois.**

**Railroads in Illinois.**—The passage of the Central railroad law in such a shape as will ensure the completion within less than four years from this time, of a railroad from the junction of the Ohio and Mississippi rivers to the southern termination of the canal, with branches thence to Chicago and Galena, will alone speedily raise our young State to the first rank in the confederacy.—Added to this, we have assurances that the Alton, Mount Carmel and New Albany road will be built by a grant of land from the general government; and still further, a bill has passed for continuing the Alton and Sangamon road to Bloomington, where it will form a junction with the Central road; and yet again, we have the Illinoistown and Vincennes road and the Alton and Terre Haute road—all of which combined will develop the immense resources of Illinois, and, by means of immigration and increased wealth, will, in a few years, affect a liquidation of the State debt.—*Springfield Register.*

**New York.**

At a recent meeting at Utica, N. Y., of those favorable to the building of a road to run from that place and intersect the New York and Erie railroad, a committee reported in favor of laying the route through the valley of the Unadilla and Susquehanna, cutting the New York and Erie road at Deposit, as a terminus, with a branch from a point four miles north for the purpose of receiving coal. The road will be 84 miles long, and will cost \$1,680,000.

**Buffalo and State Line Railroad.**—Some changes have been made in the directorship of this road which will add to the efficiency of the company. The executive committee now consists of George Palmer, Dean Richmond, Fred. Whittlesey, Asa Sprague and Joseph Field, all strong men and familiar with railroad matters. The Fredonia Censor states that the work is all under contract, the right of way secured, the grading, bridging and clearing of the track in a tolerable state of forwardness; the iron, etc. for the superstructure bought and locomotives and cars contracted for, and before the first of January next the iron horse will be running the whole distance between Buffalo and Erie.

**The Pacific Railroad.**

An intelligent gentleman who has been by way of the overland route to California, thus speaks of this enterprise:—

"A railroad along that route is a stupendous humbug. There is not sufficient timber between the Missouri river and the Sierra Nevada mountains to build one mile of the road. But the greatest objection is, there is no paying country—no productive land. Excepting the Salt Lake valley, Carson's valley, east of the Sierra Nevada, and a small district about Fort Bridger, east of the Salt Lake, none of it can be called habitable, after passing one hundred miles west of the Missouri river. This is nature's interdict. A railroad can never pay over a vast desert. Mountains present no obstacle that genius and industry may not surmount; but here is a ruinous space—a dead void—that totally negatives the idea of a railroad."

**Pennsylvania.**

**Leggett's Gap Railroad.**—A correspondent writing from Providence, Luzerne county, Pa., says:

"The Leggett's Gap railroad company have commenced laying a new track from Scranton (Lackawanna Iron Works) with heavy T rail of the best quality, and have several miles ready for the cars. The company have commenced mining coal preparatory to stocking the road, which will be finished in a few months, forming a connection with the New York and Erie railroad at Great Bend. This road will be the medium for supplying Western New York with coal.

The stock of the Codd's Gap and Delaware railroad, from Scranton to the Delaware Water Gap, is all subscribed for, and we may reasonably expect, within eight months from this time to breakfast at home and dine in New York city. Real estate is advancing rapidly."

**Hanover Branch Railroad.**—The Hanover (Pa.) Spectator says that Mr. Gonder, the enterprising railroad contractor, and Mr. Sicles, Chief Engineer, have arrived in that borough, and conferences have been held with the board of directors. It is now expected that this road will be commenced within a very early period.

The Erie Observer states that the Franklin canal company, "authorized to construct a railroad to Lake Erie," has purchased iron sufficient to lay the entire track of the Erie and Ohio section of the road. The iron was bought on very reasonable terms, and is of best quality—fifty-six and one-half pounds to the yard, and of the same pattern used on the New Haven road. A portion of the iron is to be delivered on the 13th of June next, and the balance as fast as wanted. This line between Erie and the Ohio State-line is an important one, and it is in a fair way of being completed as early as those portions which lie in New York and Ohio.

**Railroad Traffic.**

The earnings of the Macon and Western road for February were.....\$19,588 92  
February, 1850.....19,657 63

Decrease.....\$70 71

**New York and New Haven Railroad.**—The receipts of the New York and New Haven road continues to show a very large increase over the same period of last year. The earnings for February were, after paying off all connecting roads:

1851.....\$50,726 48  
1850.....30,300 11

Excess 66 1/2 per cent.....\$20,426 37

The aggregate traffic of January and February was—

1851.....\$106,722  
1850.....60,523

Increase in two months over 75 per cent.....\$46,199

**To Contractors.**

**OHIO AND PENNSYLVANIA RAILROAD.**  
Sealed proposals will be received at the office of the Ohio and Pennsylvania Railroad Company, in Pittsburgh, until Thursday, the 20th day of March next, for laying the Track from Pittsburgh to Massillon, a distance of 107 miles. Specifications and forms of proposals may be obtained at the office in Pittsburgh, for two weeks previous to the letting, on application to Solomon W. Roberts, Chief Engineer. The proposals must be in accordance with the printed forms, and addressed to the President of the Company.

WM. ROBINSON, Jr., President.  
Pittsburgh, Feb. 6th, 1851.

**AMERICAN RAILROAD JOURNAL.**

Saturday, March 15, 1851.

**The Stock and Money Market.**

Since our last the aspect of the money market has not materially changed, though the tendency of stocks have been downward. Money for all legitimate purposes is still abundant, and is likely to continue so. The decline in stocks is the natural reaction of the speculative feeling which has so long prevailed, and which carried many of the fancies beyond their value. This reaction affects by sympathy all branches of business, and gives a general dullness to operations of all kinds. But as the business of the country is sound, and as most of our railroad enterprises are confined to legitimate objects, we may soon expect to witness an improvement. We have no doubt but money will continue to be had at fair rates for all proper objects during the season.

Since our last paper was made up, the great sale of the Erie railroad bonds to the amount of \$3,500,000 has taken place. The prices averaged something over 90, and the sale is regarded by all parties a very favorable one for the company. The time selected for the sale turned out to be very unfortunate. The present reaction was at its height, and several large failures, and rumors of others, had thrown the public mind into a very excited state, and created a feeling of distrust for all securities. But in face of all this, and in spite of the most determined efforts to break down the sale, the company has been most triumphantly sustained. We never before had any idea of the strong hold which this great work has upon the good will of our citizens, till we witnessed the immense crowd which the sale called together, and the enthusiastic manner in which the bids were crowded upon the auctioneer. We have no doubt but the company could obtain an additional loan of an equal amount, at the same rate, if it could show a good reason for asking it. This work has the confidence of the New Yorkers, and they determined to sustain it. This confidence is founded upon the able management of its affairs; but the directors must remember that the most critical period in the success of this great work will not occur, until after it is opened for business. Such is the experience of all similar works.

But little has been done during the past week in the negotiations of bonds of new works. The feeling in the market has given a temporary check to operations. The price of rails remain about at last quotations. A large amount of orders have recently gone abroad, and we shall soon see what effect they will have upon the price.

In the meantime, no check seems to have been given to the number of new projects which are constantly coming forward. Every settled portion

of the country is determined, not only to have railroads, but to have them at once. It cannot brook delay; and we may set it down as a fixed fact, that railroads will be built till almost every farmer in the country shall be within convenient distance of one. In this state of things it is fortunate that the means of most of our leading lines are secured. These, as soon as they are completed, will be able to render essential aid to collateral lines branching from, or connecting with them.

**SALES OF STOCK IN NEW YORK.**

	March 5. Sales.	March 12. Sales.
U. S '67 Loan.....	115½	116
Erie R.R.....	81½	80½
Harlem R.R.....	68	67½
Stonington.....	41½	42
L.I. R.R.....	23½	23½
Norwich & Wor....	61	63
Del. & Hudson.....	130	133½
Reading.....	61½	60½
Morris Canal.....	17½	18
Erie income.....	93	91½
" " Bonds.....	103	104
Canton.....	53	55
Farmers Loan.....	64½	67½

**SALES OF STOCKS IN BOSTON.**

	March 4.	Mar. 11.
Old Colony Railroad.....	67	68½
Boston and Maine R.R.....	106	105½
Eastern Railroad.....	103½	103½
Fitchburg Railroad.....	111½	111½
Michigan Central Railroad.....	94½	92
Northern Railroad.....	70½	68½
Vermont Central Railroad.....	34½	34½
Vermont and Mass. R.R.....	—	28½
Western Railroad.....	106½	105½
Ogdensburg Railroad.....	38	39½
Rutland Railroad.....	59	58½
Boston and Worcester Railroad.....	104½	104
Rutland Railroad Bonds.....	88	85
Ogdensburg Railroad Bonds.....	99½	99
Vermont Central R.R. Bonds.....	92½	92
Boston and Providence R.R.....	85½	83½
Philadelphia, Wilm'gton & Balt.....	30½	29½
Concord R.R.....	55½	55½
Manchester and Lawrence.....	90	90
Worcester and Nashua.....	51½	51

**Baltimore and Ohio Canal.**

The Cumberland Civilian states that at a meeting of the board of directors of the Chesapeake and Ohio Canal, on the 28th ult., in Washington, a resolution was passed to reduce the present rates of toll on coal transported on the canal to 2½ mills per mile per ton, which will amount to about 45 cents per ton from Cumberland to Georgetown.

**Ohio.**

**Railroad to Cleveland.**—This road is in better condition than we supposed it would be, under the circumstances. A considerable portion of the rail has been laid this winter, and the grade being newly thrown up and not yet graveled, it could not be otherwise than that the road would be somewhat uneven. The work appears to be remarkably well done. It is the intention to put the planking down on a bed of gravel all the way, so as to make it entirely solid and reliable for any speed that may be required. It is a great enterprise, most nobly pushed to completion by the energy of Alfred Kelly. It must have been gratifying to him to see this glorious result of his labors, and to hear the praises of his name that were on every tongue at Cleveland. We cannot doubt that the road will be eminently prosperous, and will form a very important link in the great line of travel from west to east. Its easy grades and vast stretches of straight lines will make it one of the fastest travelled lines in the Union.—*State Journal.*

**New York.**

The Genesee Valley railroad has been organized at Rochester. The road will cost \$800,000. The directors are:—James Faulkner, Dansville; Charles H. Garroll, Groveland; James S. Wadsworth, Genesee; John Venum, Mt. Morris; D. H. Fitzhugh, Groveland; Allen Ayrault, Genesee; Elijah F. Smith, Wm. Firkin, Azariah Bosley, Amos Bronson, Levi A. Ward, Freeman Clarke, Rochester. The directors subsequently elected James S. Wadsworth, Esq., president of the board, and Freeman Clarke, Esq. secretary and treasurer. The southern terminus of the road is to be in the town of North Dansville.

**Railroad from Canandaigua to Niagara Falls.**

—A company has been organized with a strong board of directors to build a road from Canandaigua to Niagara Falls, being an extension of the Corning and Canandaigua road, now nearly completed. The road is to be of the six feet gauge, corresponding with the Corning and Canandaigua and Erie roads, and will form a complete line of wide track from New York to Niagara Falls. Sufficient stock has been subscribed to authorize the formation of the company.

**Shipments of Gold from California.**

We are indebted to Messrs. Winter & Latimer, of San Francisco, for the annexed authentic statement of the amount of gold shipped from California, from its first discovery in 1849 to the present time:

Gold dust shipped by steamers, from 1st April, 1849, to 31st December, 1850.....	\$34,570,255
Estimated to have been taken by passengers.....	4,571,500
Shipped to foreign Pacific ports and Europe, coined, manufactured into jewelry in California, and forwarded per sailing vessels, as per Custom House reports.....	4,576,042
Carried overland and coastwise by miners from Mexico, Chili and Oregon, shipped by merchants without manifest entry, and amount at present in possession of miners, merchants, &c.....	19,000,000

\$62,717,797

In the above estimates the value of gold dust has been computed at \$16 per ounce troy. To this amount should be added \$1.50 the mint value, say.....

5,869,794

Total..... \$68,587,591  
[Baltimore American.]

**Louisville and Nashville Railroad.**

We observe with much pleasure that the citizens of Nashville, Tennessee, and Louisville, Kentucky, as well as the people in the intermediate country along the contemplated line of railroad, are becoming quite in earnest on the subject of building a railroad from Nashville to Louisville.

Meetings have been held in Louisville and in several counties along the line, and spirited resolutions adopted expressive of their approbation of the project; and we now observe that Nashville has also moved in the matter, and has at a public meeting appointed the following delegates to attend a convention at Elizabethtown on the 11th inst.; the object of which is to devise the ways and means to construct the road by the most useful and practicable route, viz:—Eugene Underwood, Esq; Col. V. K. Stevenson, W. N. Bilbo, Esq; Dr. C. K. Winston; Dr. W. K. Bowling; Dr. W. P. Jones; Jno. E. Gleaves, Esq; D. F. Carter; E. P. Connel; S. D. Morgan, and A. W. Johnson.



From the subjoined resolution of Col. Stevenson, which was unanimously adopted by the meeting, we infer that the citizens of Nashville are thoroughly aroused to the necessity and importance of a well digested system of internal improvements:—

Resolved, That a public meeting be called through the newspapers, to be held at the Court House, in Nashville, on Thursday, 20th of March next, to take into consideration the subject of internal improvements in Middle Tennessee.

#### European and North American Railway.

In the Massachusetts Legislature, on Friday last, Mr. Paine, of Melrose, presented the petition of John A. Poor, Elijah L. Hamlin, and Anson G. Chandler, executive committee for the State of Maine, to promote the construction of the European and North American railway; for an appropriation of the proceeds of the public lands lying in the State of Maine, in aid of the same.

The matter was referred to a special committee.

On the 8th of March, the speaker announced the special committee on the petition for aid to the European and North American railway, as follows:—Messrs. Cushing, of Newbury, Curtis, of Boston, Paine of Melrose, J. M. Earle, of Worcester, Wood, of Fitchburg, Barstow, of Somerville, Branning, of Monterey, and Trask, of Salem.—Advertiser.

#### Memphis and Charleston Railroad.

Gov. James C. Jones, President of this company, recently visited New Orleans for the purpose of securing subscriptions to this work. At the close of the first evening's address, subscriptions to the amount of \$60,000 were received. We give below a portion of the Governor's speech:—

"Massachusetts (he said) has invested 50 millions in railroads. He spoke of the New York canals and roads. Pennsylvania was tapping the Ohio, and would soon communicate with St. Louis. Virginia also would reach the Ohio and Guyanotte. South Carolina and Georgia would come to the mouth of the Ohio. Georgia had 860 miles of railroad in operation, and 500 more in construction. Mobile was making a determined effort for a part of the trade. New Orleans must not rely to confidently on the Mississippi. By degrees it was losing portions of its trade. The road from Cairo to Chicago would draw off largely. Then the road from Sandusky to Cincinnati; from Cleveland to Sandusky; the Wheeling and Philadelphia road; the Baltimore and Ohio road; the roads of Virginia, Carolina and Georgia, were all tapping the commerce of the Mississippi, and diverting it from New Orleans. This year New Orleans had lost 40,000 bales, which now went to Charleston. When the Mobile road reaches Holly Springs, there will be another loss of 125,000 bales, which maintains at the least calculation 10,000 or 12,000 persons. Memphis has a trade of 125,000 bales, its principal business, and a population of 12,000. It is 290 miles from Mobile to Lagrange, and it will cost \$2 50 per bale to deliver cotton in Mobile. It costs now \$2 50 to \$5 to deliver the same cotton in Memphis by teams. It is apparent that Memphis and New Orleans must lose all of this trade, unless they can find a cheaper means of transport. He thought the railroad from Memphis to Charleston would furnish this mode. From Decatur, on the Tennessee river, to Charleston is 565 miles, and it costs \$4 32 freight per bale. From Decatur to Memphis is one hundred and ninety miles. This can be delivered in New Orleans for \$2 92, if the railroad is made from Decatur to Memphis. This would restore to New Orleans the 40,000 bales already lost, and retain the still larger amount about to be lost, by the continuation of the Chattanooga road below the bad navigation of the Tennessee. From Mobile to Holly Springs is two hundred and ninety miles, and the freight is \$2 25. From Holly Springs to Memphis is fifty miles. The expense

of freight to New Orleans would be one-half of the expense to Mobile.

"He went into calculations to show that every hundred thousand bales led to the direct profit of New Orleans of at least \$1,000,000. All this would be lost unless the road from Memphis was built.—But this was only a link in the chain. New Orleans must aid in building the road to Jackson and connecting with New York. The road from New Orleans to New York, via Memphis, was four hundred and seven miles nearer than any other.—When the roads shall be completed, it would take only three days to travel from New Orleans to New York. In speaking of the advantage to New Orleans of the passengers, he said that Boston receives in mere portage \$1,500,000 more than the trade of Nashville."

He instanced Massachusetts and Georgia as striking examples of the success and great advantages of railroads. In the latter State there are already six hundred and sixty miles of this sort of road; and these, he said, within two years would be increased to a thousand. Its progress, (as we have already stated) has been in population greater than any other State in the Union, (some 45 per cent within the past ten years,) and this vast increase is doubtless owing almost entirely to her railroads and manufactories. Lands within her borders which a few years ago would fetch only two dollars an acre, are now selling at twenty-five dollars.

In Massachusetts the progress in wealth, notwithstanding its sterile soil and the fact that it was so little improvable before has been almost equal to that of Georgia. In Boston alone, since the completion of the various roads that lead from her, with giant arms, to all the surrounding States, the value of property has increased from forty-nine to one hundred millions.

#### Maine.

*Atlantic and St. Lawrence Railroad.*—This railroad was opened for traffic to Bethel on the 10th instant, making 70 miles in all in running order. A section of 21 miles more will probably be opened in July next. This will carry the road to Gorham, New Hampshire, where a large hotel is in process of erection, which will be in readiness for the accommodation of travellers to the White Mountains and elsewhere, as soon as the road is opened to that place.

A meeting of the stockholders of this road was held in Portland on the 6th inst., for the purpose of taking into consideration the proposition of Messrs. Wood & Black, the contractors, to complete the whole line in July, 1852, instead of January 1, 1853, the time stipulated in the present contract. To secure the completion of the work in July, nothing is wanting but that the payments should be made within that time to correspond with the progress of the work. After a full discussion of the subject, it was unanimously voted to raise the further sum of \$800,000 upon a mortgage of the road, making the whole loan for which the road is to be pledged, \$1,500,000. As we presume there will be no difficulty in negotiating these bonds, we may set it down as a fixed fact that the Portland and Montreal railroad will be in operation in one year from July next!

At the same meeting it was voted to authorise the directors of the Atlantic and St. Lawrence railroad to unite with the Androscoggin and Kennebec railroad, with or without other parties, in taking a lease of the Penobscot and Kennebec railroad, on such terms as may be agreed upon by the directors provided the required authority to make such lease shall be granted by the legislature.

This will secure the completion of the Penobscot and Kennebec railroad, and will probably be the means of extending the broad gauge to Bangor, and ultimately through the State into the British Provinces.

#### Blake's Patent Fire-proof Paint.

A long and most satisfactory experience has given to the above named composition, the character of a standard article, and takes it entirely out of the class of novelties and quackeries which are so common at the present day. We believe it to be the best protection against fire, of anything in the shape of paint. It is equally valuable in protecting every kind of material from the action of the atmosphere.

This paint, when first taken from the mine, can be easily reduced to a paste, by the thumb and finger; but it very soon hardens into stone on exposure to the atmosphere. In the preparation of it, before it has time to harden, it is reduced to a fine powder. This, on being mixed with oil, and applied as paint, assumes in a few months the consistency of stone. It so thoroughly incorporates itself into the grain of the wood, that as soon as the paint becomes hard, it is almost impossible to separate the two. It has no tendency to scale, to fly off, or to chap. It fastens itself to whatever it is applied, and soon encases it in a covering of stone. The thickness of the covering of course may be made to depend upon the number of coatings applied.

These are facts attested by the use of this article for six or seven years. The absorption or evaporation of the oil has no effect upon the body of the paint, as its cohesive qualities are entirely independent of this; the use of the oil being necessary only for the purpose of applying it. Such being the case, it is easy to see that this article must be invaluable for the covering of the wood work of the inside of depots exposed to fire, as well as to all other buildings. It costs only about one-half as much as paints of which lead is the base, and in durability, for aught that can be seen at present, is vastly greater.

This article has received the highest premiums awarded at the State Fairs of Ohio, New York and Massachusetts, and has been analyzed by some of our most eminent chemists, among whom may be named Prof. C. T. Jackson, of Boston, Dr. Chilton, of this city, and Dr. Locke, of Ohio, all of whom concur in pronouncing it admirably adapted for use as a paint.

It is now used by a number of railroad companies, among which may be named the Philadelphia, Wilmington and Baltimore, Cumberland Valley, Camden and Amboy, the Michigan Central, besides a large number of other roads. The superintendents of these roads, we understand, speak in the highest terms of this article, and use it almost exclusively in all cases where paint is required.

Very large quantities of a spurious article has been thrown in the market, from the currency obtained for the *genuine*, which is sold by Mr. Blake and his agents only. Mr. Blake's reputation as a man, and a person of large property, is a full guarantee that purchasers will get a good article, or that if any mistake should arise in this respect, they will have their money refunded, which is of no small importance in this age of imposition.—From the above source our readers can rely upon getting what they contract for.

We have thus called particular attention to this article, because we believed that in doing so, we should confer a much greater favor upon the public than upon the patentee, though the latter we think is well deserving of a liberal patronage.

Depot for Blake's Patent Fire-proof Paint, 24 Pearl Street, New York.

## New York.

*Utica and Schenectady Railroad.*—The following is the way fare rates adopted by the Schenectady and Utica railroad:—

From Schenectady to

Hoffman's Ferry.....	9½ miles,	30
Crane's Valley.....	12½ "	30
Amsterdam.....	15½ "	35
Tribe's Hill.....	21½ "	45
Fonda.....	26½ "	55
Spraker's.....	35 "	70
Palatine Bridge.....	38 "	80
Fort Plain.....	41½ "	85
Garoga Creek.....	43½ "	90
St. Johnsville.....	46½ "	95
East C. Creek.....	49½ "	100
Rockton.....	52½ "	115
Herkimer.....	63½ "	130
Frankfort.....	66½ "	150
Utica.....	77½ "	156

And the same in returning.

## Indiana.

*The Evansville and Illinois Railroad Co., and the Wabash Railroad Co.*—By an act of the general assembly of the State of Indiana, passed in Jan. 1851, the charter of the Evansville and Illinois railroad company was amended, increasing the amount of their capital stock, and authorizing the company to extend their road to Indianapolis, the capital of Indiana.

By another act, passed at the same session, the Wabash railroad company was incorporated. This company is authorized to construct a road from Vincennes, in Knox county, to Terre Haute, in Vigo county, with the power to extend the same to Crawfordsville, in Montgomery county, where it will connect with the Crawfordsville and Lafayette railroad, a work nearly ready for use. From Lafayette a road will be extended north to Lake Michigan, and east to the city of Sandusky, on Lake Erie. When these roads shall be finished, there will be a continuous railroad from this city, [Evansville,] the terminus of the Wabash and Erie canal, up the fertile valley of the Wabash and Lafayette, a distance of about two hundred miles. In its progress this road will be placed in connection with the Ohio and Mississippi railroad at Vincennes, and the Terre Haute and Indianapolis railroad, at Terre Haute.

There is a provision in the charter of the Wabash railroad co., authorizing the amalgamation of that company with the Evansville and Illinois railroad company. This, no doubt will be done.

That portion of the Evansville and Illinois railroad lying between this city and Princeton, a distance of 27 miles, will be ready for the iron the approaching summer. Arrangements are making to have a few miles finished by the 4th of July next, and it is expected it will all be completed in the course of a year.

A survey is being made of that portion of the road lying between Princeton and Vincennes which will probably be placed under contract next summer. Nature has nearly prepared the ground for a railroad between Vincennes and Terre Haute—and also between Vincennes and Point Commerce. But little labor will be required to prepare this portion of these roads for the superstructure.

The iron for the road from Evansville to Princeton has partly arrived at New Orleans, and it will all reach that place in a short time.

The financial affairs of this company are in a most favorable condition. The company does not owe a dollar beyond their present means to meet at a moment's warning. The grading, bridging and superstructure of the road is provided for by indi-

vidual subscription. The iron is paid for. There remains yet to be provided for, the furniture and equipments for the road, with a suitable number of depot buildings. The debt that may be incurred to pay for these, will be the only debt the company will owe, when the road to Princeton shall be completed.

## Ohio.

*Columbus and Xenia Railroad.*—This road extends from Columbus the capital of the State, to the Little Miami railroad, at Xenia, a distance of 54 58-100 miles. From the report of the directors submitted at a meeting of the stockholders, held at Columbus on the 15th of Feb. ult. We learn that the total cost of construction has been \$1019,170 61. Of the whole line, about twelve and three-fourths miles was constructed by the Little Miami railroad company, under an agreement between the two companies, by which the former stipulated to construct this portion of the road. Upon the completion of the whole road, the Little Miami company were to give up the part constructed by them to the Columbus and Xenia, and take stock in the latter to the amount of the cost of this section. This has been done, and a certificate for 4000 shares of stock amounting to \$200,000 has been issued to that company in part payment. The total cost of the balance of the road, inclusive of right of way, depot grounds and buildings, discount on bonds sold to purchase iron, &c., amounts to \$824,011 95. Deduct for net earnings of road, applicable to payment of interest \$37,449 56, and we have as the cost to Jan. 1, 1851, \$786,562 19; adding \$232,608 62, as the cost of that part of the road constructed by the Little Miami railroad company, and we have \$1,019,170 61 total as the cost of the road. The report also states that the net earnings for the last two months have been at the rate of \$67,000 a year—upwards of 6 per cent per annum upon its cost including expenses for additional machinery, &c., necessarily incurred to do business as it should be done.

The road, 54.58 miles in length, was completed in February 1849, and the first passage from Columbus to Xenia was made on the 22nd of the same month in 1850. There are 51 miles of straight line.

Of the whole distance 10.77 miles are level. Upon 7.82 miles the grade is 10 feet to the mile; upon 8.65 miles 20 feet; upon 12.56 miles from 20 to 30 feet; upon 9.72 miles from 30 to 39.60 feet; upon 4.70 miles 39.60 feet—which is the maximum grade.

The amount expended on the road is as follows, for graduation, masonry and ballasting \$186,595 85; for superstructure [exclusive of iron] \$47,611 16; for iron for superstructure \$269,234 90; for bridges \$34,900; and \$793,34 for sundry items. The engineering department's expense amounts to \$16,729 65. The total cost, therefore, of the road, including incidental expenses to the amount of \$8,495 51 and \$6858 75 for expenses under first organization, is \$571,309 18. The cost per mile is then \$13,720 20. The average total cost from Columbus to Xenia will amount to \$15,500 per mile. The expenses of right of way, water stations and fixtures, buildings and for locomotives and cars, are \$82,880 23. By adding to this amount \$571,309 18 the cost of construction as above the total cost east of Greene county is \$663,999 41. The Little Miami company expended on Green county \$232,608 42. The whole cost then, by this addition is \$896,607 83.

The receipts of the company for ten months, for carrying passengers and freight, amounted to \$66,

365 67. The expenses for the same time were \$28,916 11. The company run 4 locomotives only, but anticipate this spring's business will demand as many more.

## Mississippi and Atlantic Railroad.

Some misconception has prevailed relative to the present situation and prospects of the Mississippi and Atlantic railroad, the route of which takes the originally projected line of the great Cumberland road from Terre Haute to Illinoistown opposite to St. Louis; thus completing the last and most direct link in the great system of railway communication now so nearly accomplished between the Atlantic cities, and the emporium of the west.

My duty to the stockholders engaged in this enterprise may justify a concise statement of the facts necessary to a correct apprehension of the case.

In conformity with an act passed by the general assembly of Illinois, under the title of "An act to provide for a general system of railroad corporation," articles of association were entered into for the purpose of "constructing, owning, and maintaining a railroad" as set forth in said articles, a copy of which is filed, according to law in the office of the secretary of State.

Having fully complied with the requisitions of the law, the act constitutes the association of a corporate body for the term of fifty years, from the 12th day of October 1840, which is the date of entering said copy on file.

The 22d section of the general law, which is somewhat prolix and ambiguous, proposes to reserve to the legislature the right in certain cases to fix the route and termini of roads, which shall not be constructed without its express sanction by a law to be passed thereafter.

Although well assured not only by our own judgment, but by the opinion of eminent and distinguished jurists, that this reserved power could not be exercised to our prejudice, it was deemed advisable by a majority of the board of directors, that, in order to prevent a possible misconception on the subject, which might in some degree prejudice the sale of stock, we should request of the legislature their "express sanction" to our route and termini.

In our application to that body we remark:—That "having complied with all the requisitions of the law which invites the citizen to bestow his time and his means upon those works of permanent utility which are calculated to promote the general welfare; having, with much labor and expense, completed an accurate and scientific survey of the route, over a great portion of which, the right of way has been secured, we now request that express sanction on the part of the legislature of the State which the terms of the act indicate, and which is desirable to give character and efficiency to our enterprise, by relieving us from all misconception relative to the legitimate construction of the general law under which we are incorporated."

This application was rejected, in the several forms in which it was presented, and had it been in the power of the legislature to destroy our corporate existence, and deprive us of our property and our rights, the result might have been disastrous to both.

Fortunately however for the safety of the people, they possessed no such power.

It gives me much satisfaction to assure the friends of this great and useful enterprise, that its prospect of entire success and early accomplishment is in



the highest degree flattering, and that no effort shall be wanting on the part of the directors to meet the just expectation of the stockholders, and of the public at large.

WM. S. WAIT, President.  
Greenville, Ill. Feb. 24, 1851.

#### Illinois.

**Mississippi and Atlantic Railroad.**—In another part of our paper we give a statement of the president of this company in reference to the condition and prospects of this road. Below we give the substance of the report of an experimental survey of this line recently made.

The commencement of the road is to be at some convenient point on the State line, and connecting with the Terre Haute and Richmond railroad is to run through the counties of Clark and Cumberland and through the north west corner of Jasper county, and through the county Effingham, and to Vandalia, in Fayette county, and thence through Bond and Madison counties, and through or near the north west corner of St. Clair county, terminating on the Mississippi river at or near Illinoistown, so as to touch as near as can be, a point opposite the eastern termination of the contemplated Pacific railroad. The whole distance is one hundred and sixty miles. According to survey the road will commence about three miles west of Terre Haute, and one mile north of the National road. It will terminate on the west, at a short distance north of Illinoistown, and opposite Bloody Island: to which latter place it is to be ultimately extended.

The maximum grade is 40 feet per mile, with no curves having a less radius than 5930 feet. There are to be five divisions in construction of the road; the first extending from the State line to Greenup; the second, from the latter place to Errington; the third from Errington to Vandalia; the fourth from Vandalia to Pocahontas; and the fifth from Pocahontas to the Mississippi river. The estimated cost for grubbing, grading, and bridging and average length of each, are as follows: of the first division \$308,504, and length 36.88 miles; of the second division \$186,210, length 25.44 miles; of the third division \$100,477, length 28.52 miles; of the fourth division \$140,808, length 24.83 miles; of the fifth division \$272,100, length 38.69 miles. The average cost per mile of each is, of the first, \$8,360 57; of the second, \$7,139 22; of the third, \$3,523 04; of the fourth, \$5,670 88; of the fifth, \$7,032 83. The total cost for grubbing, grading and bridging is \$1,008,098, and the average cost per mile is \$6,529 09. The whole line is to be 154.4 miles in length. In the superstructure of the road the rail proposed to be used is the T rail—60 lbs. to the yard. The estimated cost in the superstructure per mile is: for timber, ballasting, &c., \$1,880, chairs and spikes \$500, 105½ tons of iron, at forty-nine dollars, \$5,169 50, making a total of \$7,549 50. The total cost of the whole road will be, for grubbing, grading and bridging \$1,008,091, superstructure for 154.4 miles \$1,165,642 80:—Probable cost of depots, locomotives, cars, &c. for the first year's business \$185,000,—making a total of \$2,358,733 80; with an average cost per mile of \$15,276 77. The report concludes with a reference to the prospects of the road for business, and advising of the use of a late invention of George E. Sellers, for working 'grades,' by the adoption of which the surveyor of the road anticipates a great saving of expense and a more ready completion of the work.

#### European and North American Railway.

The *British Almanac and Companion* for 1851, under the head of Chronicle of Occurrences for 1850, has the following in regard to the European and North American railway, viz:

"July 31.—At a convention of delegates from Nova Scotia, New Brunswick, Newfoundland, Canada, and the New England States, held in Portland, United States, under the Presidency of the Governor of the State of Maine, a plan for shortening the transit between Great Britain and the United States was considered and sanctioned. The plan proposes the construction of a railway to be called the European and North American railway, which should pass through Maine and New Brunswick, connecting the great centres of industry and commerce in the United States with some convenient port on the Atlantic coast of Nova Scotia. The harbor of White Haven, near Cape Canso, was named, whence to Galway the distance is but 2,000 miles, which may be traversed by powerful steamers in five days. A bill for incorporating the European and North American railway was subsequently passed unanimously by the Legislature of Maine."

At the time of the assembling of the Portland Convention, the railroad had been extended East, as far as Waterville on the Kennebec river. The convention proposed to extend a line of railway from the valley of the Kennebec through New Brunswick to the eastern coast of Nova Scotia.—We learn that the road is to be forthwith extended to Bangor, fifty miles further east, and that the means for the accomplishment of the same, in two years time, have been secured. The mode in which this has been effected is this, the Atlantic and St. Lawrence railroad, and the Androscoggin and Kennebec railroad, both of them on the broad gauge, or rather the medium broad gauge of 5½ feet—have entered into agreement to take that portion of the road from Waterville to Bangor, on a lease of 20 years, paying 6 per cent per annum on the cost. This secures the necessary means, and the road is to be put under contract and completed in two years. From Bangor to St. John the survey has been completed, and the Legislature of New Brunswick, now in session, have under consideration the subject of a grant for a charter thro' that province, and a similar law is under consideration in Nova Scotia. As soon as the charters are obtained, giving concurrent powers to the same company in Maine, New Brunswick and Nova Scotia books of subscriptions are to be opened for the whole line. It is proposed in each province to adopt a law similar to the Canadian Facility bill, guaranteeing one half the amount of line in each province.

#### Scarcity of Silver Coin.

A correspondent of the Journal of Commerce, alluding to the uneasiness that prevails, in business circles, lest we should be left without a sufficient supply of silver coin, says:

"It is clear that the price of silver must be lower than it is in Europe; otherwise shippers would not export it; it costs, I presume, at least 5 per cent, (say 3 per cent premium, and 2 per cent charges and profit,) to place it where it is wanted. It seems curious that the continental powers should insist on their people using for currency, silver, which is so much dearer in proportion than gold; and much more inconvenient. But as they will do so, the silver will go there, until they have the necessary supply. I look on it in the same light,

as if they should compel those who are fond of poultry, to eat woodcock or pheasant, instead of barn door fowl. But probably before a great while the powers of Europe will find out their mistake; and then the tide will run the other way. If a demand should spring up for flour, we should think it wrong, if laws should be passed to prevent its export; even if we were afraid the export would advance the price."

#### State Debt of Ohio.

The Cincinnati Gazette gives the following statement of the State debt, from the canal fund commissioners' report:—

On the 1st day of January, 1851, the foreign debt of the State was \$16,566,773 69, and the domestic debt \$449,001 70—making the total debt of the State, January 1, 1851, \$17,015,775 39. The total debt of the State on the 1st of July, 1845, amounted to \$18,563,391 89, so that there has been a reduction of the debt in five years of \$1,547,616 50.—During 1850, Ohio stocks to the amount of \$2,845,910 33 were redeemed by the issue of new stocks to the amount of \$2,600,000. Thus 5 per cents of 1850, to the amount of \$374,000, and 6 per cents to the amount of \$2,469,190 33 were redeemed by the issue of \$1,000,000 of 5 per cents payable after 1855, and \$1,600,000, payable at 1875—the stock issued by \$244,190 53. This excess was paid with the premiums received on the exchange of stocks, which ranged from 2 to 16 per cent and amounted with interest to \$364,264 96.

The difference in value between the 5 per cents issued and the 6 per cents redeemed is \$136,000, so that the total gain to the State by this exchange of stocks is half a million of dollars. The total receipts from tolls and the general revenue from March 15, 1845, to November 15, 1850, were \$10,030,423 89, and the total receipts from all other sources were \$4,791,703 34, and the excess of receipts over expenditures during that period are \$1,093,600 76.

There is \$1,429,981 52 of 7 per cent State stocks falling due this year, and the commissioners say that of the above excess or balance the sum of \$976,257 78 is applicable to its redemption, and that the resources applicable to the redemption of the State debt during the current year, will much exceed the balance to be provided for, and they say that "the ordinary revenues of this department will, therefore, be sufficient for the entire redemption of this State stock."

The report states that the State will not require to borrow any money to pay off its liabilities due in 1856. The following table, taken from the last report, exhibits the probable accumulation of the sinking fund:

	Amount of sinking fund.	Reducing debt to
1856.....	\$1,046,296	\$14,782,274
1860.....	930,822	13,851,452
1865.....	1,514,277	12,337,175
1870.....	2,026,443	10,310,032
1875.....	2,711,838	7,598,894
1880.....	3,629,041	3,969,843
1885.....	3,969,843	.....

The above calculation contemplates the complete payment of the State debt in thirty-five years.

#### Canal Tonnage and Tolls.

In our annual statement of the commerce of the canals, which was published soon after the close of navigation, we gave a detailed account of the receipts and shipments of property, together with the gross tonnage for several years previous; but the annexed will exhibit more clearly the effect of the reduction of tolls on some of the leading articles.

The total tonnage of the canal for 1850 was 3,076,617 tons; in 1849 it was 2,894,732 tons, showing an excess in 1850 over 1849 of 181,885 tons.—The tolls for the same period were \$3,273,899 23;

and in 1849, \$3,268,226 03. Excess over 1849, \$5,673 20. This exhibit shows that the excess of tonnage in 1850 is comparatively greater than the excess of tolls. This can be accounted for by the reduction of the rate of tolls upon certain articles in 1850. The same proportion of tonnage to tolls in 1850, that existed in 1849, would produce \$3,473,578 82, an excess above the actual receipts of \$199,679 59.

The increase of the tonnage on merchandise is supposed to have been made up mostly of articles on which the tolls were reduced. Under the head of merchandise take the following:—

1850, total tonnage.....	269,370 tons.
1849 " " " " " " " " " "	255,455 tons.

Excess in 1850.....	13,915 tons.
1850, total tolls.....	\$756,877
1849, " " " " " " " " " "	769,036

Decrease, 1850..... \$13,036

The same proportion of tonnage to tolls on merchandise in 1850 that existed in 1849, would produce \$811,843, being an excess over the actual receipts of \$54,966.

The following gives a comparative view of the business of the canal, in a few other articles, in which the tolls were reduced one mill:—

	1849.	1850.
Pork, tons.....	18,183	11,996
Bacon " " " " " " " " " "	4,684	5,482
Lard " " " " " " " " " "	4,940	4,977
Dom Spirits, tons.....	12,399	9,606

Total tons.....	40,206	32,061
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	1849.	1850.
Pork, tolls.....	\$31,575	\$15,686
Bacon " " " " " " " " " "	10,397	9,560
Lard " " " " " " " " " "	10,911	8,234
Dom spirits, tolls.....	20,708	12,146

Total tolls....	\$73,591	\$45,626
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This exhibit shows a falling off in tonnage of 8,145 tons, and \$27,965 loss in tolls, and \$15,209 less than they would have been in the rates of 1849.

It will be recollected that the west strenuously advocated a greater reduction than what was made, and if an error was then made, it was not in the reduction of one mill, but it was in not fixing the rates at a figure that would command this trade.

The diversion of western trade from Buffalo to Oswego has also considerably affected the revenue of the canals. While there has been 36,475 tons less of this trade entered the canal at Buffalo in 1850 than in 1849, the western tonnage coming to Oswego has increased 41,664 tons.

Another reason which is given for the diminished proportion of tolls to tonnage, compared with the previous year, is that the increase of tonnage has been much greater, comparatively, on the Champlain than on the Erie, and this increase is mostly on articles paying a low rate of toll.

The tons of property arriving at tide water, by the Erie and Champlain canal, with the amount and per cent of increase, was as follows:—

	Inc.	Per ct.		
1849.	1850.	1850. inc.		
Erie.....	1,266,724	1,554,675	287,951	22.73
Champlain.	313,222	479,188	165,966	53

Of this increase on the Champlain canal, 120,430 tons was lumber and timber.

In connection with this subject, we would state that by the way of the Oneida river improvement, and the Oneida Lake canal, some 24 miles of the toll-paying distance on the canal is also saved to the shippers, although we believe that only a small amount of property was taken by this route last year.

The estimated value of property shipped on the canal in 1850 was, \$156,397,929; and the same in 1849 was, \$144,732,285; showing a balance in favor of 1850 of \$11,665,644.

The annexed exhibits the tons of property shipped, and the amount of tolls paid, by the several railroad corporations, during the years named:—

1850, tons.....	113,812; tolls.....	\$150,214 84
1849, tons.....	81,676; tolls.....	142,463 59

Excess, 1850.	32,136;	Increase
		1850..
		\$7,751 25

The tonnage account shows a very handsome increase, it being nearly 30 per cent.

The season which will soon be opened will be marked in the era of our inland improvements.—With a large reduction in tolls on many of the leading articles of export or consumption, a spirited competition will be carried on at the west for a portion of that trade which had previously been carried on in other directions. As to the amount of property awaiting the opening of the canal and the lakes, in the Western States, there is some diversity of opinion. The following is the latest information we have seen:—

"We learn, from a correspondent, in the west, that the whole of Indiana teems with surplus produce, which the farmers are keeping back in order to nurse the market. The prosperity of last year has placed them in a position to do so. In Wisconsin, we are sorry to learn, the crops last year have all proved a failure, and scarcely a bushel of any kind of grain will come forward."—*Albany Journal*.

**J. & L. Tuckerman,**  
IRON COMMISSION MERCHANTS,  
AND MANUFACTURERS OF  
ULSTER BAR & POUGHKEEPSIE PIG IRON,  
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**AMERICAN PIG IRON.**  
"POUGHKEEPSIE" brand, Dutchess Co., N. Y.  
"GLENDALE" brand, Lehigh county, Pa.  
Orders for the above two well known brands will be received, and promptly executed, by  
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69 West St., New York.

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A New Article, made from Vegetable and Mineral substances combined, entirely free from the objections made to all other tapes, arising from contraction and elongation in consequence of atmospheric changes. Fine wires, of a material not affected by dampness or dryness, are woven into the warp of the Patent Tape, rendering it not subject to variations in length, like all other tapes heretofore manufactured.—Instead of being merely painted, it is immersed in a peculiar solution of gums, and the fibres being solidly compacted together, it acquires substance and strength presented by no other article. They are enclosed in patent cases, superior to all others in lightness, strength and durability.

Imported and for sale only—together with every description of Drawing and Profile Paper, Tracing Paper in rolls, Vellum or Tracing Cloth, Field Books, Mouth Glue, and a general assortment of Engineer's materials—by  
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Importer of Stationary, 191 Pearl st., N. Y.

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**Atkinson, T. C.,**  
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**Clement, Wm. H.,**  
Little Miami Railroad, Cincinnati, Ohio.

**Cozzens, W. H.,**  
Engineer and Surveyor, St. Louis, Mo.

**Alfred W. Craven,**  
Chief Engineer Croton Aqueduct, New York.

**Floyd-Jones, Charles,**  
Alton and Sangamon Railroad, Alton, Illinois.

**Gay, Edward F.,**  
Columbia and Philadelphia Railroad, Philadelphia Pa.

**Gzowski, Mr.,**  
St. Lawrence & Atlantic Railroad, Montreal, Canada.

**Grant, James H.,**  
Nashville and Chattanooga R. R., Nashville, Tenn.

**S. W. Hill,**  
Mining Engineer and Surveyor, Eagle River,  
Lake Superior.

**Holcomb, F. P.**  
Southwestern Railroad, Macon, Ga.

**Latrobe, B. H.,**  
Baltimore and Ohio Railroad, Baltimore, Md.

**Miller, J. F.,**  
Buffalo and Conhocton Valley Railroad, Bath, N. Y.

**Morris, Elwood,**  
Schuylkill Navigation, Schuylkill Haven, Pa.

**Nott, Samuel,**  
Lawrence and Manchester Railroad, Boston,

**Prichard, M. B.,**  
East Tennessee and Georgia R. R., Cleveland, Tenn.

**W. Milnor Roberts,**  
Bellefontaine and Indiana Railroad, Marion, Ohio.

**Roberts, Solomon W.,**  
Ohio and Pennsylvania Railroad, Pittsburgh, Pa.

**Sanford, C. O.,**  
South Side Railroad, Virginia.

**Steele, J. Dutton,**  
Pottstown, Pa.

**Trautwine, John C.,**  
Civil Engineer and Architect, Philadelphia.

**Tinkham, A. W.,**  
United States Fort, Bucksport, Me.

**Troost, Lewis,**  
Alabama and Tennessee Railroad, Selma, Ala.

**Whipple, S.,**  
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### HOTELS.

**Exchange Hotel,**  
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This Extensive Establishment, erected expressly for a Hotel, with every regard to comfort and convenience, is situated in the centre and most fashionable part of the city, and but a few minutes' walk from the Railroad Depots and Steamboat Landings.  
The House has lately undergone a thorough repair, embracing many valuable improvements, and will accommodate 250 Guests. BARNUM & CO.

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Locomotive and Stationary Steam Engines; Boilers; Iron, Brass, Copper and Composition Castings; Coppersmith's Work.

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Wheels and Axles fitted, and all kinds of Railroad Machinery furnished at short notice.

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STATE ASSAYER, late Geologist to Maine, Rhode Island, New Hampshire, and the United States, offers his services to his friends and the public in making any Chemical, Mineralogical or Geological researches that may be required for the improvement of Agriculture and the Manufacturing Arts. Particular attention will be paid to the exploration of mines and to assaying of ores of the metals.

State Assayer's office, 31 Somerset st.

Boston Sept. 3, 1850.

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AGENT FOR

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Manufacturers of Cast, Shear, German, Blister, and Spring Steel,

Of all descriptions, Warranted Good.

**FILES.**

Manufacturers of Machinists' Warranted Best Cast Steel Files, expressly for working upon Iron and Steel, made very heavy for recutting.

A full Stock of Steel and Files at all times on hand.

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Agents for Avalon Railroad Iron and Nail Works, Maryland Mining Company's Cumberland Coal 'CED'—'Potomac' and other good brands of Pig Iron.

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AGENTS for the sale of Charcoal and Anthracite Pig Iron, Hammered Railroad Car and Locomotive Axles, Force Pumps of the most approved construction for Railroad Water Stations and Hydraulic Rams, etc., etc.  
July, 27, 1849.

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Models of this Track, on the most improved plan, may be seen at the Engineer's office of the New York and Erie Railroad.

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ALSO—CURLED HAIR, the best manufactured in market.

**To Railroad Companies, Machinists, Car Manufacturers, etc., etc.**

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IS prepared to contract for furnishing at manufacturer's prices—  
Railroad Iron,

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Passenger and Freight Cars,  
Car Wheels and Axles,  
Chairs and Spikes.

Orders are invited; and all inquiries in relation to any of the above articles will receive immediate attention.

**Manufacture of Patent Wire ROPE AND CABLES,**

For Inclined Planes, Suspension Bridges, Standing Rigging, Mines, Cranes, Derrick, Tilters, &c., by  
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THE MOUNT SAVAGE IRON WORKS, Alleghany county, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron. Communications addressed to either of the subscribers will have prompt attention. J. F. WINSLOW, President

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November 6, 1848.

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THE SUBSCRIBERS ARE PREPARED TO take orders for Railroad Iron to be made at their Phoenix Iron Works, situated on the Schuylkill River, near this city, and at their Safe Harbor Iron Works, situated in Lancaster County, on the Susquehanna river; which two establishments are now turning out upwards of 1800 tons of finished rails per month. Companies desirous of contracting will be promptly supplied with rails of any required pattern, and of the very best quality.

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THE Subscribers, having the selling agency of the following named Rolling Mills, viz: Norristown, Rough and Ready, Kensington, Triadelphia, Pottsgrove and Thorndale, can supply Railroad Companies, Merchants and others, at the wholesale mill prices for bars of all sizes, sheets cut to order as large as 56 in. diameter; Railroad Iron, domestic and foreign; Locomotive tire welded to given size; Chairs and Spikes; Iron for shafting, locomotive and general machinery purposes; Cast, Shear, Blister and Spring Steel; Boiler rivets; Copper; Pig iron, etc., etc.

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Round Iron, Band Iron, Hoop Iron,  
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Axles, Locomotive Tyres,

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**PATENT HAMMERED RAILROAD, SHIP & BOAT SPIKES.**—The Albany Iron Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for rail roads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works will be promptly executed.

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The above Spikes may be had at factory prices, of Erastus Corning & Co. Albany, Merrill & Co., New York, E. Pratt & Br. & Co., Baltimore, Md.

**Bowling Iron. Stamped B.O.**

Railway Tire Bars  
Locomotive and other Axles  
Boiler Plates  
and every other description of this superior Iron.

The subscribers, agents for the sale of Bowling Iron, are prepared to execute orders for importation, especially for railway and machinery uses, with despatch from the manufacturers.

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**Ibbotson, Brothers & Co's  
CELEBRATED CAST STEEL**

Best Cast Steel Royal Improved Files, well known as better adapted for Engineers' and Machinists' purposes than any now in use in the United States.

Every description of Square, Octagon, Flat and Round Cast Steel, Sheet, Shovel and Railway Spring Steel, etc., and Steel to order for any purposes—manufactured at their works in Sheffield—and universally known by the old stamp "Globe."

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**Railroad Iron.  
SPIKES.**

Wrought Iron CHAIRS, New Pattern.

THE Undersigned continues to contract, as usual, for the above articles. The reputation already acquired for their excellent quality is a guarantee that strict attention shall continue to be paid to the wants and interests of purchasers.

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**WILLIAM JESSOP & SONS'  
CELEBRATED CAST-STEEL.**

The subscribers have on hand, and are constantly receiving from their manufactory,

PARK WORKS, SHEFFIELD,

Double Refined Cast Steel—square, flat and octagon. Best warranted Cast Steel—square, flat and octagon. Best double and single Shear Steel—warranted. Machinery Steel—round.

Best and 2d gy. Sheet Steel—for saws and other purposes.

German Steel—flat and square, "W. I. & S." "Eagle" and "Goat" stamps.

Genuine "Sykes," L. Blister Steel.

Best English Blister Steel, etc., etc., etc.

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May 6, 1848.

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B. O. Railway Tires, Railway Wheels,  
Scotch Pig Iron, Tin Plates and Banca Tin,  
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Contracts for Rails made on behalf of the manufacturers, for delivery at any ports in the United States, at fixed prices.

Bowling Tires and Tire Bars and Scotch Pigs imported to order.

Muntz's Ship-sheathing, and a general stock of Tin Plates and Banca Tin in store, and for sale by

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3,000 TONS C. L. MAKE 63½ lbs. per yard, now landing and to arrive.

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300 Tons Banks Best Iron, Round, Square and Flat.

10 " English Bar " " " " "

10 " 9-16 Square Iron for Railroad Spikes.

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CONTRACTS made by the subscribers, agents for the manufacturers, for the delivery of Railway Iron, at any port in the United States, at fixed prices, and of quality tried and approved for many years, on the oldest railways in this country.

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**JOHNSON, CAMMELL & Co's  
Celebrated Cast Steel,**

AND  
ENGINEERING AND MACHINE FILES,  
which for quality and adaptation to mechanical uses, have been proved superior to any in the United States. Every description of square, octagon, flat and round cast steel, sheet, shovel and railway spring steel, best double and single shear steel, German steel, flat and square, goat stamps, etc. Saw and file steel, and steel to order for any purposes, manufactured at their Cyclops Steel Works Sheffield.

JOHNSON, CAMMELL & CO.,

100 William St., New York.

November 23 1849.

**Bowling Tire Bars.**

40 Best Flange Bars 5½x2 inches, 11 feet long.  
40 " " 5½x2 " 7 feet 8 in. long.  
40 " Flat " 6x2 " 11 feet long.  
40 " " 6x2 " 7 feet 8 in. long.

Now in store and for sale by

RAYMOND & FULLERTON,  
45 Cliff street.

**Wheel, Forge and Foundry  
Iron.**

LOCUST GROVE Wheel Iron of great strength and superior chilling property.

Balt. Charcoal Forge Iron, from Patuxent, Curtis Creek and Gunpowder furnaces.

Elkridge Foundry Iron, of superior strength and softness. Anthracite and Charcoal Iron from Pennsylvania and Virginia. Gas and Water Pipes, Lamp Posts from Elkridge furnace.

LEMMON & GLENN,

5m9 62 Buchanan's Wharf, Baltimore.

**S. S. Keyser & Co.,  
IRON WAREHOUSE,**

Corner of South and Pratt Streets,

BALTIMORE, MD.

Selling Agents for the Rough and Ready Bar Iron and Elk Boiler and Flue Iron Rolling Mills, Sarah and Taylor Furnaces, and Wrightsville Hollow Ware Foundry, and Dealers in Bar and Sheet Iron, and Cast, Sheer, German, Blister, Spring and Electrodes Steel, etc., etc.

**Smith & Tyson,**

GENERAL COMMISSION MERCHANTS,

No. 25 South Charles St., Baltimore, Md.

AGENTS for the Celebrated Columbia Pig Iron, suitable for Car Wheels and Chilled Rolls.

Columbia refined Charcoal Blooms; Refined Charcoal Juniata Billet Iron for Wire; Refined Iron for Bridging, of great strength; Cut Nails, Spikes, and Brads; Railroad Spikes and Wrought Chairs. 22f

**Tredegar Iron Works.**

ROLLING MILL FOUNDRY AND MACHINE

SHOPS. The undersigned continues to manufacture at his Works in this city (from best charcoal metal) Bar Iron of every description, embracing—Rounds and Squares, from ½ to 5 inches diameter. Flats, from ½ to 7 inches, all thicknesses.

Bands and Scrolls, all sizes. Boilerplate and Plough Iron. Railroad and Locomotive Axles and Tires. Locomotive Frames, Spikes and Plates. Hoops, Ovals, Half Ovals, Half Rounds, Angle, T, L, and indeed every description of Iron usually manufactured, all of which he warrants to be equal to any made in this country. He also manufactures at his Foundry and Machine Shops all descriptions of Railroad Work, say, Locomotives, Railroad Wheels and Axles complete and ready for the road, Railroad Chairs, etc. Also, Marine and Stationary Engines all sizes, Sugar mills and Engines, Horse mills, and every kind of Machinery usually required for the operations of the country. He has paid particular attention to getting up machinery, etc., for Gold Mine operations, and those in want of such work might find it to their advantage to give him a call.

J. R. ANDERSON.

Richmond, Va., Sept. 10, 1850.

CUT NAILS OF BEST QUALITY, BAR IRON

(including Flat Rails) manufactured and for sale by

FISHER, MORGAN & CO.,

75 N. Water St., Philadelphia.

**Car Wheel Iron.**

100 Tons "Columbia" No. 2 Cold Blast Charcoal Iron.

300 Tons "Salisbury" No. 1, do. do.

For sale by CHARLES T. GILBERT,  
No. 80 Broad st.

New York, Sept. 21, 1850.

**Railroad Spikes.**

THE subscribers are prepared to make and execute contracts for Railroad Spikes of a superior quality, manufactured by the New Jersey Iron Company, at Boonton.

DUDLEY B. FULLER & CO.

139 Greenwich st. corner of Cedar.

**Railroad Iron.**

1650 Tons, weighing about 61 lbs. per yard, 40 tons, weighing about 52 lbs. per yard, and 825 tons, weighing about 53½ lbs. per yard, of the latest and most approved patterns of T rail, for sale by

BOORMAN, JOHNSTON & CO.,

119 Greenwich street.

New York, Aug. 26, 1850.

N.B.—B. J. & Co are also prepared to take contracts for English rails, delivered in any of the Atlantic ports of the United States.

**Railroad Iron.**

THE Undersigned, Agents for Manufacturers, are prepared to contract to deliver Rails of superior quality, and of any size or pattern, to any ports of discharge in the United States.

COLLINS, VOSE & CO.,

74 South St.

New York, June 1, 1850.

**Spikes, Spikes, Spikes.**

ANY person wishing a simple and effective Spike Machine, or a number of them, may be supplied by addressing

J. W. FLACK,

March 6, 1850.

Troy, N. Y.

**Railroad Iron.**

2000 Tons, weighing 58 pounds per lineal yard, of the most approved pattern of T rails, in store and to arrive, for sale by

COLLINS, VOSE & CO.,

74 South St.

New York, June 1, 1850.

**Railroad Spikes, Boiler Rivets, etc.**

THE Subscribers, Agents for the sale of James S. Spencer's, Jr., Railroad and Boat Spikes, Boiler Rivets, and Wrought Iron Chairs for Railroads, made at his Works near this city, will execute all orders with promptness, despatch, and of the best quality.

ALSO IMPORTERS of English refined and Merchant bar Iron; Extra refined Car and Locomotive Axles (from 3½ to 6½ inches in diameter); B. O. Locomotive Tire (welded by Baldwin). Also, supply Boiler and Flue Iron cut to pattern or otherwise—Spring, Shear, and Cast Steel, etc., etc., etc.

T. & E. GEORGE.

Philadelphia, November 14, 1850.

**Railroad Iron.**

THE UNDERSIGNED, HAVING made arrangements abroad, are prepared to contract for the delivery of Foreign rails, of approved brands upon the most favorable terms.

They will also make contracts for American rails, made at their Trenton works, from Andover Iron, in whole or in part, as may be agreed upon.

They are prepared to furnish Telegraph, Spring and Market Wire; Braziers and Wire Rods; Rivets and Merchant Bars to order, all made exclusively from Andover Iron. The attention of parties who require iron of the very best quality for special purposes, is respectfully invited.

COOPER & HEWITT,

17 Burling Slip, New York.

February 15, 1850.

**Railroad Iron.**

THE Undersigned, Agents for Manufacturers, are prepared to contract for the delivery of English, Welsh and Scotch Rails, of any pattern and weight, also for every description of English, Welsh, Scotch, and Swedish Iron. Railway Chairs and Spikes, Rivets, Bolts, Nuts, Washers, Chain Cables, Anchors, Tin Plates, German Spelter, Iron Castings, and every description of Machinery.

WILLIAM BIRD & CO.,

Iron and Tin Plate Merchants,

44 Wall st., New York.

And at 5 Martin's Lane, City, London,

and 140 Buchanan st. Glasgow.

July 27th, 1850.



**Railway Iron.**

THE Subscribers will contract to deliver, in the course of the ensuing Spring and Summer, the best English Rails, made by a particular specification, and of any pattern required.

DAVIS, BROOKS & CO.,  
68 Broad st.

On hand for sale, English rails of 58 lbs. to the yard, made by particular specifications.  
January 10, 1851. 2m

**To Iron Masters.**

WANTED—A Person to take charge of a Blast Furnace for Smelting Iron, for further information apply to  
COLLINS, VOSE & CO.,  
74 South street.

**Railroad Iron for Sale.**

THE Mansfield and Sandusky City Railroad Co. have on hand from twelve to fifteen hundred tons of American Flat Bar Railroad Iron, weighing 38 lbs. to the lineal yard, which they offer for sale at reasonable rates.

The iron has been in use about four years, and is sound and in good condition. It is 2½ by ½.

It will be ready for delivery at short intervals between the opening of navigation in the spring and the 1st September next.

For further particulars inquire at the office of the company at Sandusky City, Ohio.

C. G. FORBES, President.

December 24, 1850.

**Railroad Iron.**

THE "Montour Iron Company" is prepared to execute orders for Rails of the usual patterns and weights, and of any required length not exceeding 30 feet per rail. Apply at the office of the Company,  
No. 73 South 4th st., Philadelphia,

Or to the Agents,  
CHOUTEAU, MERLE & SANFORD,  
No. 51 New st., New York.

September, 1850.

**American Railroad Iron.**

1000 Tons, weighing 50 lbs. per yard, manufactured by Reeves, Abbott & Co., at the Safe Harbor Iron Works, and now lying in yard at Brooklyn, for sale by

CHOUTEAU, MERLE & SANFORD,  
No. 51 New street.

**Tubes.**

The undersigned are in direct communication with the Birmingham Patent Lap Welded Iron Tube Company, for the sale of their very excellent and superior Boiler and Gas Tubes in large or small quantities. These Tubes are sold very extensively in England and on the continent of Europe are sold exclusively by

WM. BIRD & CO.,  
Iron and Tinplate Merchants,  
44 Wall st., New York  
5 Martin's Lane, City, London,  
and 140 Buchanan st., Glasgow.

**Wanted.**

WANTED—A Situation in a Civil Engineer's office, by a Young Gentleman from Scotland—has had six years' experience as a practical Draughtsman, Architect, Surveyor, and Leveller in one of the principal civil engineering establishments in Scotland. First rate reference given. Apply to Messrs. Cooper & Hewitt, 17 Burling Slip, or to

JAS. SNEDDON,  
23 Harrison st.

**Wanted.**

A Second-hand Locomotive of 10 to 15 tons weight. A note, giving lowest terms, addressed to A. B., Railroad Journal Office, will receive attention.  
January 9, 1850.

**India-rubber for Railroad Cos.**

RUBBER SPRINGS—Bearing and Puller—Fuller's Patent—Hose from 1 to 12" diameter Suction Hose. Steam Packing—1-16 to 2 in thick. Rubber and Gutta Percha Bands. These articles are all warranted to give satisfaction, made under Tyer & Helm's patent, issued January, 1849. No lead used in the composition. Will stand much higher heat than that called "Goodyear's," and is in all respects better than any in use. Proprietors of railroads do not be overcharged by pretenders.

HORACE H. DAY,  
Warehouse 23 Courtlandt street  
New York, May 21, 1849.

**Great Work on Bridge Building, etc., etc.**

JUST published in medium folio, One Dollar, 75 cts. to subscribers.

Part IV of a "THEORETICAL AND PRACTICAL TREATISE ON THE CONSTRUCTION OF BRIDGES IN STONE, IRON AND WOOD," including the Equilibrium of Arches, the mathematical principles of the Oblique Arch, Suspension Arch, etc., Construction of Foundations in Water, Centering, Oblique Arches, etc., the application of Iron to Railroad Structures, Practical Tunnelling, Suspension Bridges, etc.; illustrated by numerous accurately executed Plans, Elevations, Sections and Details of Stone, Iron and Wood Bridges, Viaducts, Tunnels, Culverts, Machines, etc., constructed by the most eminent Architects and Engineers in Europe and the United States, and numerous Original Designs for Bridges, Viaducts, Culverts, etc. The whole calculated to meet the exigencies of Engineers, and assist Draughtsmen, Bridge Builders, Mechanics and Students. By George Duggan, Architect and Civil Engineer.

The present part contains beautifully executed plans, elevations, sections, and details of the Iron Lattice Bridge 140 feet span over the canal in the suburbs of Dublin on the line of the Dublin and Drogheda R.R., Plans, elevations and sections of the Timber Bridge over the Schuylkill, at Market st., Philadelphia, with Arches 160 and 190 feet span. Plans, elevations and sections of a Timber Bridge with Arches 155 and 200 feet span over the Delaware. Also, plans, elevations, sections and details of Lattice and Frame Wood Bridges, explanatory of Nathaniel Towns and Colonel S. H. Long's methods of constructing Bridges of Wood, with the continuation of the Articles on Cofferdams, Concrete, Limes, Mortars, Cements, etc.

Published by George Duggan, 300 Broadway, New York, to whom all communications should be addressed and subscriptions forwarded.

Parties remitting Mr. Duggan \$5. and the remainder \$4 when they have been supplied with the first six parts of the "Theoretical and Practical Treatise on Bridge Building, etc." shall receive it monthly as published. To those making Mr. Duggan a present remittance of \$9, the work will be forwarded post free to any part of the United States.

**Great American Engineering**

AND MECHANICAL WORK, just published in medium folio, One Dollar, 75 cts. to Subscribers. Part X. of "Specimens of the Stone, Iron & Wood Bridges, Viaducts, Tunnels, Culverts, &c., &c., of the United States Railroads." By George Duggan, Architect and Civil Engineer.

The present part contains beautifully executed plans, elevations, and sections of the Timber Bridge with Arches 135 feet span, over the Mohawk river, on the line of the Utica and Schenectady R.R. Plans elevations, sections and isometrical views of Timber Piers 100 feet high, a Timber Bridge of 55 feet span, and Ice Breakers, on the line of the Little Schuylkill and Susquehanna R.R.

Also plans, elevations, sections, isometrical views and details of an Iron Bridge 356 feet long, with Arches 81 feet span, erected by the N. York Iron Bridge Co. over Moores Creek, on the line of the Virginia Central R.R., and plans, elevations and sections of an Iron Plank Road Bridge 160 feet span, erected over Buffalo creek by the same company, with a description of Col. Long's method of constructing Bridges in Iron, and an explanation of the causes that led to the failure of the Iron Bridge 60 feet span, near Lackawanna, on the line of the New York and Erie R. R., at midday, on the 31st July last, by which several lives were lost, and a great amount of property destroyed.

Published by GEORGE DUGGAN,  
300 Broadway, New York.

To whom all communications should be addressed and subscriptions forwarded.

**Railroad Lanterns.**

COPPER and Iron Lanterns for Railroad Engines, fitted with heavy silver plated Parabolic Reflectors of the most approved construction, and Solar Argand Lamps; manufactured by

HENRY N. HOOPER & CO.,  
No. 24 Commercial St. Boston.  
August, 16, 1849. 6m33

**For Sale.**

TWO Locomotive Engines—10½ tons weight, built by Baldwin. Also Four Eight-wheeled Passenger Cars, with side seats, all in good running order. Apply to  
WM. E. MORRIS,  
Office of Philad., Germantown & Norristown Railroad Co., 9th and Green sts., Philadelphia. 3m5

**TO RAILROAD COMPANIES, CAR MANUFACTURERS, etc.**

THE Undersigned hereby gives public notice, that the Commissioner of Patents, pursuant to his decision in relation thereto, on the 8th day of October, 1850, issued to him a Patent for the sole right to manufacture, and exclusive use of the INDIA RUBBER CAR SPRING, on account of priority of invention of said Spring.

F. M. RAY  
New York, Oct. 23, 1850.

**Iron Trade of Pennsylvania.**

DOCUMENTS and Statistics relating to the Manufacture of Iron in the State of Pennsylvania—giving a history of the manufacture from its commencement to this date, illustrated by diagrams. Also tables giving the address and capacity of every establishment in the State. Prepared by direction of the late convention of the trade held in Philadelphia. For sale by

LINDSAY & BLACKISTON, Philadelphia.

FIELDING LUCUS, Jr., Baltimore.

HENRY G. NICHOLS, 79 Water st., N. Y.

or at this office—price \$1 00.

It will be sent by mail to any order enclosing the money, and post paid.

**Ulster Iron.**

THE ULSTER IRON WORKS, Saugerties, N. Y., continue in full operation. Orders for round, square, flat, band, hoop and scroll iron, will be received and promptly executed by

J. & L. TUCKERMAN,  
69 West St., New York.

**Patent Machine Picket Fence**

SIX DIFFERENT STYLES of this fence are now made by patent machinery; and is by far the most economical fence for Railroads, Farms, Yards, etc., ever yet offered to the public, costing only from 4 to 30 cents per foot, according to pattern; and is so put up as to be shipped at a trifling expense. Full particulars will be furnished, by addressing the subscriber, to whom all orders should be sent.

N. STRATTON, Troy, N. Y.

**Providence Tool Co.,**

MANUFACTURERS OF

Plane Irons, Tooth Irons, Soft Moulding and Rabbet Irons, Cornice Irons, Plow Bits, and Planing Machine Knives:

NUTS, WASHERS AND BOLTS.

—ALSO—

PLATE HINGES AND PICK AXES.

They are prepared to execute orders for all descriptions of Cold Punching and Job Work.

WM. FIELD, Agent. RUFUS WATERMAN, Treas.  
PROVIDENCE, R. I.

**Lovegrove's Patent Cast Iron Water and Gas Pipes.**

THE Subscriber, the Inventor and Patentee of the Centrifugal mode of giving form to metallic substances while in a molten state, is preparing to make Cast Iron Water and Gas Pipes, of any dimensions, at prices much lower than they can be made in the old manner, and the pipes warranted to stand a pressure of three hundred pounds to the square inch, and to be soft enough to drill. Steam Engines and all kinds of machinery. Cast Iron Doors and Frames, and Mill Castings of every description, made to order.

THOMAS J. LOVEGROVE,

Machinist and Founder,

West Falls Avenue, below Pratt st., Baltimore.

**Railroad Letting, in Virginia.**

PROPOSALS will be received at the office of the chief engineer of the Richmond and Danville railroad, until 9 o'clock A. M., Monday, the 10th of March, to be decided the 13th of the same month, for doing all the grubbing, clearing, grading, ditching and masonry, on the Richmond and Danville railroad, in the counties of Amelia, Nottingham, Prince Edward, Lunenburg and Charlotte, comprehending about 45 miles of road.

Profiles and specifications can now be seen at the office of the company in Richmond; and after the 10th of February, at the offices of the resident engineers, on the line, at Burkeville and Keysville.

By order of the board of directors.

ANDREW TALCOTT,

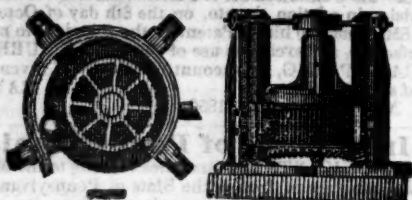
Chief Engineer R. & D. railroad.

Engineering department R. & D.

R. R. Co., Richmond, Jan. 23, 1851.

## MACHINERY.

## Henry Burden's Patent Revolving Shingling Machine.



THE Subscriber having recently purchased the right of this machine for the United States, now offers to make transfers of the right to run said machine, or sell to those who may be desirous to purchase the right for one or more of the States.

This machine is now in successful operation in ten or twelve iron works in and about the vicinity of Pittsburgh, also at Phoenixville and Reading, Pa., Covington Iron Works, Md., Troy Rolling Mills, and Troy Iron and Nail Factory, Troy, N. Y., where it has given universal satisfaction.

Its advantages over the ordinary Forge Hammer are numerous: considerable saving in first cost; saving in power; the entire saving of shingler's, or hammerman's wages, as no attendance whatever is necessary, it being entirely self-acting; saving in time from the quantity of work done, as one machine is capable of working the iron from sixty puddling furnaces; saving of waste, as nothing but the scoria is thrown off, and that most effectually; saving of staffs, as none are used or required. The time required to furnish a bloom being only about six seconds, the scoria has no time to set, consequently is got rid of much easier than when allowed to congeal as under the hammer. The iron being discharged from the machine so hot, rolls better and is much easier on the rollers and machinery. The bars roll sounder, and are much better finished. The subscriber feels confident that persons who will examine for themselves the machinery in operation, will find it possesses more advantages than have been enumerated. For further particulars address the subscriber at Troy, N. Y.

P. A. BURDEN.

## Railroad Spikes and Wrought Iron Fastenings.

THE TROY IRON AND NAIL FACTORY, exclusive owner of all Henry Burden's Patented Machinery for making Spikes, have facilities for manufacturing large quantities upon short notice, and of a quality unsurpassed.

Wrought Iron Chairs, Clamps, Keys and Bolts for Railroad fastenings, also made to order. A full assortment of Ship and Boat Spikes always on hand.

All orders addressed to the Agent at the Factory will receive immediate attention.

P. A. BURDEN, Agent,  
Troy Iron and Nail Factory, Troy, N. Y.

**CHILLED RAILROAD WHEELS.**—THE UNDERSIGNED are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of spokes or discs, by a new process which prevents all strain on the metal, such as is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,  
Willow St., below 13th,  
Philadelphia, Pa.

## Brown's Old Established SCALE WARE HOUSE,

NO. 234 WATER ST., NEW YORK.

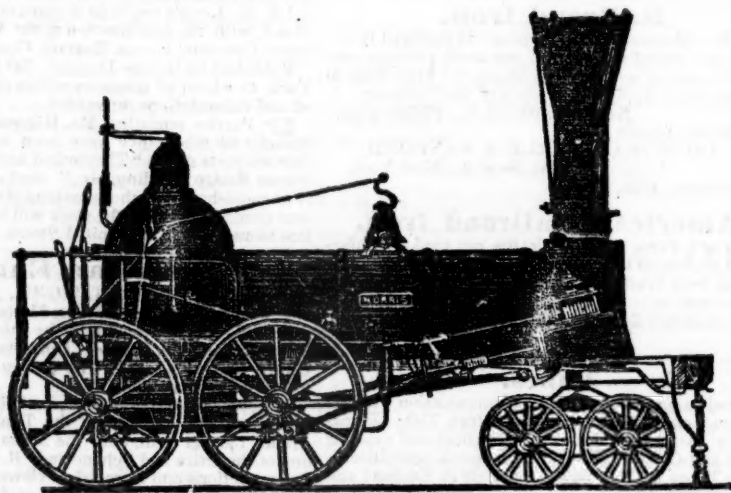
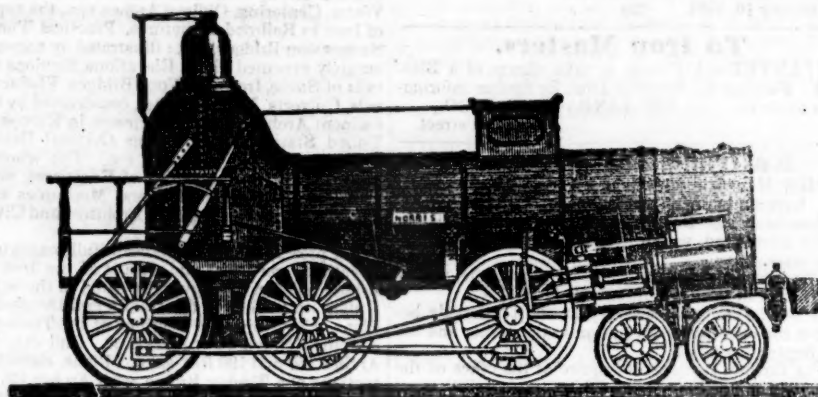
THE Subscriber, Practical Manufacturer of Scales of every description, respectfully asks the attention of Railroad Companies to his Improved Wrought Iron Railroad Track and Depot Scales which for strength, durability, accuracy, convenience in weighing, and beauty of workmanship, are not surpassed by any others in this country.

He is aware that this is rather a bold assertion for him to make, yet he can say with confidence that they have but to be tried to give them precedence over all others.

J. L. BROWN.

Bank Scales made to order, and all Scales of his make warranted in every particular.

Refer to given if required

NORRIS' LOCOMOTIVE WORKS.  
BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA.

THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size. Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Wrought Iron Tyres made of any required size—the exact diameter of the Wheel Centre, being given, the Tyres are made to fit on same without the necessity of turning out inside.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS, BROTHERS

## PATENT MACHINE MADE HORSE-SHOES.

The Troy Iron and Nail Factory have always on hand a general assortment of Horse Shoes, made from Refined American Iron.

Four sizes being made, it will be well for those ordering to remember that the size of the shoe increases as the numbers—No. 1 being the smallest.

P. A. BURDEN, Agent,  
Troy Iron and Nail Factory, Troy, N. Y.

## Etna Safety Fuse.

THIS superior article for igniting the charge in wet or dry blasting, made with DUPONT'S best powder, is kept for sale at the office and depot of

REYNOLDS &amp; BROTHER,

Sole Manufacturers,

No. 85 Liberty St.

NEW YORK.

And in the principal cities and towns in the U. States.

The Premium of the AMERICAN INSTITUTE was awarded to the Etna Safety Fuse at the late Fair held in this city.

November 3, 1849.

1y

COLUMBUS, OHIO,  
Railroad Car Manufactory.  
RIDGWAYS & KIMBALL,

HAVE established at this central point, the manufacture of Passenger, Freight, Gravel and Hand Cars for Railroads, and assure all Western Railroad Companies that it will be their constant aim to procure the best materials and workmen, and to turn out the best kind of work at fair prices. Specimens may be seen on the Columbus and Xenia Railroad. The patronage of Railroad Companies is respectfully solicited.

1y8

## FOR SALE.

THREE LOCOMOTIVES, Manufactured by M. W. Baldwin, of 10 tons weight, all in complete repair, and now running on the Columbia and Philadelphia Railroad.

For particulars apply to A. L. Roumfort, Supt. of said road, either at Philadelphia, or Parkersburg, Chester county.

A. L. ROUMFORT,

Supt. Motive Power Col. &amp; Philad. R.R.